

DOMESTIC MEDICINE;

OR,

PLAIN INSTRUCTIONS IN THE ART OF

PRESERVING AND RESTORING HEALTH

BY SIMPLE AND EFFICIENT MEANS

BY

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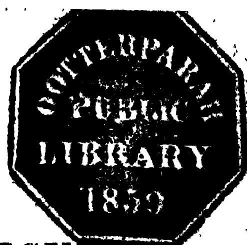
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ADVERTISEMENT.

M. Raspail's method of preserving health and curing diseases has achieved a most unequivocal and truly legitimate success in France; and it may indeed be averred that it has shaken and displaced in that country, to a considerable extent, both the various systems of the old school of Medicine, and the more recent importations, Homœopathy and Hydropathy. It is not too much to say that millions have derived solid and lasting benefit from M. Raspail's simple, plain, and lucid instructions in the difficult art of managing the health. Mr. Weale trusts, therefore, that an English version of M. Raspail's work will not be unacceptable to the public.

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PART III.



DOMESTIC MEDICINE.

INTRODUCTION.

Health is the normal or regular state of life; it fits man for the performance of his natural and social duties.

Illness is an exceptional state of life; it reduces man to the position of a useless encumbrance to society.

The art of preserving one's health is called *Hygiene*.

The art of recovering or restoring one's health, when lost or enfeebled, is called *Medicine*.

Health is the most inestimable blessing that beneficent nature can confer on man: disease, the direst visitation that can befall him. The manner and means, therefore, of maintaining or restoring the one, and combating of the other, might naturally be supposed to form with every person a subject of all-powerful and engrossing interest. But this is by no means the case: from one of those strange and apparently inexplicable contradictions in our human nature, that have puzzled the philosophers of all ages, and will most likely continue to puzzle them to the latest day to come, mankind seem to have agreed, by a species of tacit understanding, to neglect or ignore altogether those branches of knowledge that would appear to concern them most. Thus, while we see theological lore, for instance, eagerly sought after among almost all classes of society; while no man, with any pretence to education, would like to be deemed ignorant of the laws, at least, of his own country; while the physical sciences successfully assert their claim to rank as regular branches of popular education; while terms of the abstrusest sciences are growing familiar as household words in Mechanics' Institutes and Young Men's Literary Societies; while even that slow-going gentleman, the British agriculturist, begins to smell ammonia

in his manures, and to conceive some faint dawn of a notion that chemistry may, after all, be a good thing for a farmer to know—the study of the *laws of health and disease* is almost universally neglected, and abandoned to a comparatively small knot of men, by but too many of whom this most noble of arts is degraded to the level of an ordinary business or trade, carried on, moreover, mostly with a degree of ignorance and presumption that would be sufficient to ruin the greatest botch even in the cobbling line; and yet do we not see every day the immense majority of people submit blindly to the prescriptions and ministrations of these ignorant pretenders?

Thus confined to a small corporation of traders, the art of medicine has, for more than two thousand years past, made no *real* progress. A number of *systems* and *methods*, indeed, have succeeded each other with greater or less rapidity, and each new one in succession has been trumpeted forth to the world as "infallible;" but, after having held its sway for a time over the ignorant *few*, or over the ignorant *many*, as the case might be, it has had to give way again to some new system, equally extolled at first, and equally abandoned and supplanted in its turn. Most of these systems and methods have sunk into absolute oblivion; some few of them still survive, though with considerably diminished authority; but it may safely be affirmed, *not one* of them has ever *advanced* the art and science of medicine one step; and, indeed, one of the last inventions of the medical mind, "Homœopathy," affords us the most convincing proof that, after a "progress" of more than two thousand years, medicine has come back to the exact point from which it started, viz., to the simple *dietetics* of the ancient physicians. And let us not be misunderstood here. We would hail this apparent retrogression as an immense step in the right direction, were it not that the founder of the new school and his leading followers have, with the most audacious defiance of common sense, ventured to erect, on the simple and rational basis of a proper regimen as the most natural method of curing diseases, an airy superstructure of the grossest and most glaring absurdities. And, even as it is, and despite its *infinitesimals*, and its monstrous assertions of the curative power of its so-called *high dynamizations* of medicinal substances, Homœopathy may still be considered vastly preferable to the drenching and bleeding system of old, to which so many of our modern "professionals" still cling with tenacity, and to that most abominable form of empiricism—that most culpable system of experimenting on the

unfortunate victims of dire diseases, with deadly poisons, that is but too often pursued even by "eminent" practitioners. What could, for instance, be adduced in exculpation of a man who, like Bosquillon, physician of the Hôtel Dieu, at Paris, coolly proceeded one morning, by way of experiment, to bleed all the patients on the right, and to purge all those on the left side of his ward? Who would undertake to defend another "eminent medical authority," Magendie, who killed at one fell swoop seven epileptic patients, "just to see how they would feel after a dose of prussic acid?" What sensible man, *not* a physician, would be chivalrous enough to break a lance in defence of certain other "eminent authorities" to whom we are indebted for the free admission into the *materia medica* of *Arsenic*, *Strychnine*, *Brucea*, *Atropine*, and other distinguished members of the family of poisons? Was not Dr. Arbuthnot right when he asserted that medicine had slain an incomparably larger number of victims than all the most formidable diseases put together? Far be it from us to deny that there are also some most excellent members of the medical profession, who, no matter to which school they may happen to belong, make it their chief study to treat the patients that have the good sense or good luck to apply to them, in a simple and rational way, and in accordance with the instructions and indications of nature alone. But these are, unfortunately, *not* "the rule,' nor is there likely to arise any change for the better in this respect as long as the great majority of mankind shall continue totally ignorant of the principles and laws of health, of the causes of diseases, and of those simple and efficacious means that bountiful nature has placed at our disposal to combat them.

An earnest desire to contribute, to the best of our conscience and ability, to the final attainment of this object, which every lover of his species must so ardently desire, has induced us to publish this little book, which, we trust, may enable even those most unacquainted with medical subjects, not only to use a wise discrimination in the choice of their physician, and to control his prescriptions, but also to preserve their health, and to cure themselves and others in most cases of illness, by simple and easily procured means, and without the aid of a physician.

PART I.

On the Causes of Diseases, and on the General and Hygienic Means of Preserving or Recovering one's Health.

In this First Part we shall briefly enumerate the natural, physical, and moral causes from which our diseases arise, and the general hygienic and curative means to oppose and combat them. A disease of which we know the cause and the seat, is already half cured.

CHAPTER I.

CAUSES OF DISEASES.

Illness is not a mystery of nature, as the schools would have us believe; it is not the result of some occult influence, some mysterious cause that eludes the grasp of our senses.

A healthy organ will perform its functions in a regular manner, as long as the circumstances in which it is placed continue favourable to the performance of those functions: as long as this is the case, the organ cannot possibly be affected with illness; it can simply grow old. It would be positively absurd to assume that a healthy organ is possessed of the faculty to make itself ill; that the heart should take a fancy, as it were, to suspend its own movements, the lungs to stop their own breathing, the brain to stifle its own thoughts, the stomach to refuse the concoction of the food, &c. The function of an organ is the invariable result of the concurrence of its constitution and the circumstances which sustain it, and therefore it cannot possibly stop, so long as these two conditions exist intact.

An organ can be affected with illness, or, in other words, suspend or cease its functions, only from a want of its proper nutriment, or from some external cause or other altering its constitution.

The causes of our diseases are accordingly always external to our organs; illness attacks them invariably from without, and

does *not* emanate from themselves. To say that such and such a disease is caused by the blood, or by the bile, or the nerves, or the humours, &c., is simply to give utterance to one of those unmeaning phrases that mostly constitute the professional jargon of the schools, and that are of the same family with that celebrated one—"*nature abhors a vacuum.*" When illness affects any one of our organs, any one part of the organism, the whole suffers more or less; for in that great unity that constitutes our being, even the least important organ cannot refuse its share of work without all the other functions of the organism being in some way and measure affected thereby: when the blood is diseased, the bile cannot be in a healthy state, and *vice versâ.* Irritation of the nervous system interferes necessarily with the proper concoction of the bile, the blood, the humours. Simple effects of some external cause, the affections of any one organ or part of the body, become, in their turn, progressive causes of further morbid effects.

But what are these external causes that thus affect our organs? In most cases they escape the scrutiny of our senses. The only way to discover them, in such cases, is to proceed by analogy, *i. e.* to infer them from the similitude of the effects produced by them with those occasioned by some other cause that happens to be appreciable to our senses. When a point or sting pierces your flesh, or a simple thorn or prickle gets into your skin, your sufferings from this may become excruciating. Now, what makes you ill here? The presence of this sting in your flesh. Why? Because it has violently torn the superficial expansions of the subdivisions of the nerves, and has opened to the external air free access to the tissues protected before by the epidermis. The cause of your illness, in this case, is evidently a very small prickle or sting, of which every one, without being a physician, can appreciate the nature and the origin. In cases of this kind no one would ever dream of ascribing your sufferings to the bile, or to the blood, or to the nerves, &c.

But let us suppose that, from some circumstance that escapes our sight, this sting or prickle finds its way to the substance of the stomach or of the lungs: the presence of this foreign body in the one or the other of these organs, which are so essential to life, will necessarily give rise to much more serious symptoms. Now here, the material cause of the evil not having been revealed to the senses, medicine will step in with a whole train of conjectures: one physician will ascribe the

illness to the bile, another to the blood, a third to the nerves, &c.; the patient will be called upon to abdicate his own free will, and the use of his reasoning faculties, and to submit blindly to a treatment which he who prescribes it comprehends most likely just as little as the unfortunate patient himself, and which but too often leads to a fatal termination. A careful and minute *post-mortem* examination would reveal the presence of the little prickle, and show the sapient doctor that the bile, or the blood, or the nerves, as the case might be, had been most unjustly accused of having done all the mischief.

The same reasoning holds equally good with respect to poisons, miasms, insects, &c. In all such cases, the study of the disease belongs to the province of simple common sense, if the cause lies patent to our observation; but if the cause happens to be hidden from the scrutiny of our senses, the study of the disease is made over to the province of learned science, and in that case it is at once shrouded in impenetrable obscurity; since, in medicine, one has always neglected to follow the thread of analogy, to reason by induction, to proceed by demonstration. *The similitude of the effects has never*, in medicine, *served to reveal the similitude of the causes; and where the cause of a disease has been hidden from observation, no one has ever had recourse to analogy in order to find it out.*

We have pursued a different course. In the author's "Histoire Naturelle de la Santé et de la Maladie," and also in his "Revue Elémentaire de Médecine et de Pharmacie," it has been clearly demonstrated, that there exists not one disease in the compass of human suffering, the cause of which may not be considered appreciable to our senses; in such a manner, at least, that where we do not positively see it, we may always conjecture it with tolerable precision, and determine, if not its specific nature, at least its mechanism and mode of action. And it has also been demonstrated, in these works, that a man cannot possibly be affected with illness, so long as the air which surrounds him is respirable and his food assimilable; so long as the proper periodic movement stimulates the play of his organs; so long as no poison happens to find its way into the circulation or to the mucous membranes, and no destructive agent lacerates his organs, operating in them more or less serious solutions of continuity; so long, finally, as no sad and desponding idea—in one word, no moral cause—paralyses the play of his essential functions.

All the causes of our diseases may be classed in one or the other of these categories.

If none of these causes of illness ever happened to disturb the play of our functions, we should die only at the end of our natural term of existence; in other words, of old age, and by a process of painless extinction. But, unfortunately, in the crowded and wretched state of society as constituted at present, people hardly ever live to die of old age: death strikes them down mostly long before their natural term; they die from suffocation, miasmatic poisons, excesses or starvation, wilful or accidental poisoning, solutions of continuity within or without, depressing passions.

The causes of the diseases to which man is liable may be conveniently classed in the following nine general groups:—

1. The want or impurity of the air which we breathe. The most trifling alteration in the constitution of the atmosphere which we breathe causes a disturbance in the regular functions of the organism, and may become the germ of disease. Pure air is the bread of respiration. The purest air is a mixture of four parts of nitrogen to one part of oxygen; any alteration in these proportions is necessarily attended with danger to our health; the presence of certain miasmatic poisons in the air tends to generate some of the most formidable diseases.

2. Privation, excess, insufficiency of food, or bad quality of the alimentary substances. People die of indigestion as well as of starvation; and the sufferings in the one case are equal to those in the other. The indigestion of the rich may be looked upon as a species of set-off to the starvation of the poor; however, with a little philosophy one may avoid excesses; but what philosophy will, in our selfish society, shield the poor from the pangs of hunger? Society owes food to every one of its members willing to work; if any one dies of starvation, for want of work, society stands accused of wilful homicide. It is equally the duty of society to watch over the pure quality of the articles of food and drink consumed by its members. The frightful extent to which the adulteration of every species of articles of consumption is carried on in England is a disgrace to the country. We have assuredly no great leaning to severe measures; but we would strike with the utmost rigour of the law those wholesale poisoners that adulterate the food and drink of the people.

3. The ingestion into the organism of substances which,

far from being adapted for assimilation, and the development of the organic tissues, combine with them only to disorganize and destroy them. We call such substances *poisonous;* their ingestion may take place by way of the stomach, or by the anus, or through the medium of the mucous membranes of other organs, or by inhalation through the lungs, or inoculation through a wound, or introduction into the blood-vessels.

4. Long-continued excess of cold or heat, or sudden transition from one temperature to another.

5. Contusions and solutions of continuity of the muscles; fractures, perforations, and crushings of the bones; hurts and wounds inflicted with blunt, pointed, or cutting instruments.

6. The introduction into our tissues of prickles, awns, beards of gramineals (grasses), dust and sweepings of granaries, down of plants,—in short, of those thousands of minute, sharp, twisted, pointed, bearded bodies, which the wind carries off, and disseminates in myriads through the air which we breathe. Most of these minute bodies are organized in such a manner that, when once introduced into a tissue by one side, they can only come out again on the opposite side, and must accordingly pass right through the substance of the organ.

7. The introduction into the divers cavities of our organs of grains which germinate and develop themselves there, or of substances which swell under the influence of moisture, and thus, in the end, distend and obstruct the capacity of the organ which they have invaded.

8. The external or internal parasitism of hydatides, maggots, larvæ of flies and caterpillars, ticks, insects (lice, fleas, bugs, coleoptera), and last, though assuredly not least, intestinal worms, that seize on the infant in the cradle, and often stick to man through life, quitting him only in the grave, where they hand him over to other and more greedy worms.

9. Moral maladies, violent impressions, wounded affections, deceived hopes, disappointed ambition, weariness, and despair; those invisible causes which, in some cases, strike like lightning, whilst, in others, they gnaw and devour their victims like a subtle slow poison.

There is not one of our diseases that may not be traced to a cause belonging to some one of these nine categories. But the most fruitful in evils and ills of every kind and description—the one that performs the most important part in the history of our afflictions—is *the eighth.* The parasitism of the infinitely small is the cause of nine-tenths of our diseases. It

is against this cause more especially that our new method of treatment is directed, and, we are happy to add, with the most perfect success.

CHAPTER II.

ADVICE AND INSTRUCTIONS ON THE MEANS OF SHIELDING AND PRESERVING OURSELVES FROM THE EFFECTS OF THE FIRST OF THE CAUSES OF OUR DISEASES, VIZ., INSUFFICIENCY OF THE AIR WHICH WE BREATHE, OR ALTERATION OF ITS ELEMENTS.

1. Choose a dwelling exposed to the sun, and sheltered from the noxious emanations of swamps, ditches, and rivers, and also from those of gas-works, and other works and factories of a similar kind.

2. Do not inhabit the kitchen floor if you can help it; let your dwelling-rooms be high, and well lighted and ventilated; the windows should look to the east, or south, or, at all events, to the west.

3. Do not turn your bed-room into a work-room, library, or kitchen; keep the window in it open all day. Do not place anything in it that emits smells, no matter whether of an agreeable kind or the reverse, or that is likely to disengage suffocating gases; accordingly, banish from it all flowers, acid and ammoniacal preparations, &c. The walls should be painted with oil, or papered with a good sound paper, pasted on with size scented over the fire with black pepper, camphor, aloes, or some other aromatic substance of the kind, or even simply with garlic, which may well be termed the camphor of the poor. There ought to be no paintings or hangings suspended from the walls; these are the very hot-beds of insects and miasms. The furniture should consist simply of a bed, a night-table, a wash-stand, and two chairs.

The clefts or chinks between badly-joined boards in the floor may be advantageously stopped up in the following manner:—

Take a quart of flour, one dram of pounded pepper, and one dram of pounded aloes; mix intimately together, and make the mass into a paste. Cut long strips of cap paper and turn them up in the shape of oblong troughs, and paste the edges to the respective sides of the cleft or chink. Mix nine parts of clay with one part of plaster, and knead the mixture well with the pepper and aloe paste. When the paper pasted over the chinks is perfectly dry, fill it up with

this mixture. By this contrivance you will effectually exclude all draught from the floor, and, moreover, you will not be troubled with beetles, nor with mice either, the latter animals more particularly having a strong objection to the taste of aloes. It may even be assumed that aloes would prove a better, and, at the same time, assuredly an incomparably more safe protection against rats than ratsbane, which, in most cases, fails to destroy them, more particularly if they can get a sufficient quantity of water to drink after.

4. Put black pepper in grains, and small lumps of camphor among the wool of your mattresses. Do the same with the straw of your straw mattresses, if you have not a sufficient quantity of fern leaves, or maize leaves, or sea-weed at hand. The bedsteads of infants of tender years ought always to be garnished with picked leaves of the wood fern.

Wash your wooden or iron bedsteads frequently with camphorated alcohol (see Part II. Chapter v.), taking care to penetrate into every joint, which may be readily accomplished by means of a small brush or the beard of a feather.

The best of all couches, however, and the most natural, is the simple hammock of the sailor, which may be readily suspended between the four posts of a bedstead, or in some other convenient way.

5. Keep the temperature of your dwelling-room properly regulated so as to guard against extreme variations. The English fire-place is vastly preferable, in a sanitary point of view, to the continental stove system.

6. Keep chloride of lime constantly at hand in your water-closets; this excellent disinfecting agent should be used also, frequently, to purify the air in mephitic workshops, care being always taken to establish a thorough draught to carry off the foul smells together with that of the chlorine. The chloride of lime may be usefully employed also to purify the air round masses of stagnant water, or heaps of putrefying vegetables, &c. A fire in your bed-room from time to time (if possible even every day) will serve to keep the air pure. You should, besides, frequently burn some vinegar on a red-hot iron plate.

7. It is to be hoped that now, after the repeal of that most iniquitous and insalubrious of all taxes, the window-tax, our dwellings, and more particularly those of the humbler classes of society, will be provided with a larger share of air and light than they have hitherto enjoyed.

It is also to be sincerely hoped that those barbarous contrivances, the cellular prison and the cellular van, will be speedily abolished, and that the "philanthropic" gentlemen who occupy themselves with prison discipline will, at all events, learn to abstain from stinting the unfortunate transgressors of the laws of society, of that glorious light and air which Heaven bestows so bountifully.

8. Have your bed well aired every day. Change your body linen night and morning. Take a bath or, at all events, have a general wash every morning.—Cleanliness is the mother of health. We are no great admirers of carpets, particularly in bed-rooms; but we are afraid we should preach against them in vain. We would recommend, however, to have the floor waxed and dry-rubbed before laying down the carpet, and to have the latter frequently taken up and thoroughly beaten. Waxing and dry-rubbing a floor is in every respect preferable to the English custom of scouring, which is but too often the cause of colds, rheumatism, lumbago, and other affections of the kind.

9. Never sacrifice the interests of your health to the exigencies of an absurd fashion. Let your clothes be made wide and easy. And above all, ladies, abandon the use of that fearful invention of human stupidity, that fruitful source of suffering and disease, the corset. The natural shape of the body alone is truly beautiful; the aid of the corset can only spoil its fair proportions.

And here we will add a few words of advice to mothers and nurses. Keep your babies well covered, but let their clothes sit easy on them; tightness of dress is torture to an infant. This remark applies more particularly to the swaddling-clothes in which some mothers or nurses wrap up their unfortunate infants or charges, in such a manner as to render any movement of the extremities impossible, or at all events very difficult and painful to the infant. When the weather is warm do not be afraid to let your babies roll and kick about naked in the open air; it will make them healthy and strong.

CHAPTER III.

HYGIENIC ADVICE ON THE PROPER MODE OF LIVING.

"The culinary art is to hygiene what the pharmaceutical art is to medicine. Good cheer is one of the best preservatives of

health. Let us then inquire here, what really constitutes good and wholesome fare. A few brief theoretic explanations on the digestion of food may serve to introduce the subject.

There is not one of our alimentary substances that does not combine in it, in some form or other, the saccharine principle and the glutinous or albuminous principle. Man, who finds it already difficult enough to live on bread alone, would not go very far, were he restricted exclusively to starch or sugar.

Now if you take a mixture of sugar, or some saccharifiable substance, starch, for instance, with gluten or albumen, and leave this in contact with the air, at a temperature of 50 to 59 degrees Fahrenheit, fermentation will speedily set in, the result of which will be the production of alcohol. If, after the whole of the saccharine substance has been consumed, and transformed into alcohol, there remains an excess of gluten and albumen, the action of this excess upon the alcohol will transform the latter into acetic acid.

Well, the process of digestion in the stomach is of exactly the same nature. When the alimentary paste in the stomach has arrived at that degree of acidity which suits our organs, it passes into the duodenum, where the bile joins it; this strongly alkaline fluid neutralizes the acid, and makes the paste alkaline, to enable the products to mix with the blood, which is also alkaline. The insoluble and unassimilable residue undergoes a fresh elaboration in the large intestine, whence it is finally expelled.

The alimentary mass requires to be minutely divided, that it may favour the highest amount of elaboration in the smallest possible volume. Hence the necessity of coction, which serves as a first, and of mastication, which serves as a second, process of division; hence also the necessity of mixing with the assimilable particles, inert elements that hold them in a state of proper division, and multiply the surfaces and points of contact by interposing between the alimentary molecules. Liquid substances by themselves are as indigestible as solids; it is by their intermixture with the latter that they serve to aid the digestive process.

The addition of a reasonable quantity of alcoholic liquor tends to accelerate a sluggish digestion, by supplying the excess of gluten with an amount of alcohol that the natural process could not produce under the circumstances. Hence the necessity of good wine, beer, and other alcoholic liquors, for northern constitutions.

Any excess, no matter whether saccharine or glutinous or albuminous, is hurtful, tending, as it does, to disturb that equilibrium of the chemical proportions on which the gastric digestion depends. It has been stated already that the alimentary paste passing into the duodenum must be acid. If it happen to be alkaline, vomiting will ensue; if, on the other hand, the duodenal digestion, which, as likewise stated before, must be alkaline, happen to be acid, looseness will be the result. Indigestion arises principally from two causes: either the alimentary paste, after the completion of the digestive process, still retains an excess of one of the complementary elements of gastric digestion; or the mass is so bulky and the stomach so distended by it, that this organ is absolutely deprived of the power to move the mass forward into the duodenum. Indigestion from bread, more particularly from hot bread, is the worst of all, since it combines the effects of an excess of gluten with those of over-bulkiness of the mass.

These theoretic notions will suffice to show that a poor man may die of indigestion, and a rich man of hunger, even in the midst of all the luxuries of life.

However, the causes of a perturbed digestion are not by any means restricted to the improper nature of the food; the fault may lie equally with the digestive organs themselves. Among the causes that tend to impede or paralyse the proper play of the digestive organs, poisonous substances and intestinal worms are to be ranked highest. Intestinal worms fasten like leeches on the intestines, and multiply there to a most fearful extent if nothing interferes to oppose their increase. Hence the necessity of condiments, those balsams that are poisons for the intestinal worms. Condiments are not assimilable substances, but they are elements that serve to maintain the digestive organs in good order. Nature, always provident, has given to our condiments an aromatic flavour to please our palates, so that we might be induced to take them from choice. Physiologic medicine, even at its most brilliant period, has failed to banish condiments from the dinner-table. The sound instinct of nature will always prove more than a match for the strange flights of the medical mind.

Excesses in eating and drinking are as great destroyers of life as starvation. True sensuality is nothing else but an ingenious sobriety.

Keep regular hours for your meals; eat and drink in moderation; vary your dishes.

Never force yourself to eat if you have no appetite.

Rest yourself half an hour after each meal; and then take some bodily exercise.

Never use other water for your kitchen, or to drink, than spring-water, and well-filtered river-water. Turbid water is always either brackish or putrid, or peopled with worms. There are some epidemic diseases that arise entirely from the use of unwholesome water. Many, many diseases, indeed, might be traced to the abominable compound of dirt and putridity which our water companies are permitted to palm upon us. Surely this immense metropolis is wealthy enough to have the purest and best water brought from a distance of a hundred miles, if it cannot be procured anywhere nearer, to its very centre, and distributed thence in unstinted quantities even to the most humble habitation. Why is it not done? Why must the public welfare always give way to the paltry claims of private interests?

Never drink water out of a ditch or out of a pool, if you can possibly help it; you may swallow in it, unknowingly, small leeches even. Try rather to conquer your thirst until you can satisfy it with a more wholesome beverage.

If you happen to live in a country where goitre prevails endemically (which is caused by the use of water that has filtered through mercurial veins), put into your cisterns, and also into your drinking vessels, granulated tin, and change this every eight days; the old grains that are taken out may be made to answer the purpose again, by melting down and recasting. Or you may also use cisterns of copper tinned inside; the tinning must, however, be frequently renewed.

The best bread for the hard-working field labourer is that made of a mixture of rye, barley, and wheat; fine wheaten bread is more adapted for men of sedentary occupations, and in general for town people.

Economy in food is a foolish economy. Want and laziness go hand in hand. The amount of labour performed by an individual is generally in proportion to the amount of wholesome food consumed by him. A well-fed workman is worth four starvelings, at any time. Let masters and employers bear this in mind; considerations of self-interest may, perhaps, prevail where all the representations of humanity have failed.

It has already been stated, that the culinary art may be looked upon as an essential branch of hygiene; we trust, therefore, it will not be deemed derogatory to the dignity of science, if we give here a few hints on cooking.

A good porridge is one of the most nutritive and wholesome

dishes, particularly for a weak stomach. The following receipt will be found to give a most excellent product:—

Select the very best beef or mutton (beef is preferable in the north, mutton in the south); pour the proper quantity of water on it, trying to avoid rather the too much than the too little. Keep the pot over a gentle fire till it is time to skim. When the liquid is well skimmed, add a handful of salt; a white onion with three or four cloves implanted in it; the least trifle of nutmeg; a bunch of leek, chervil, and celery; three cloves of garlic; a pinch of pepper, a bay-leaf, and an onion roasted in hot ashes; a few slices of carrots and turnips. Let it stand simmering over a gentle fire for three or four hours. A broth of this kind suffices often, by itself, to cure gastritis (inflammation of the stomach, stomach-ache). You may also add to the broth, towards the end of the boiling, mashed potatoes, or vermicelli or rice boiled previously in water. If you can afford it, have always on your table, by way of side dishes, hams, sausages, anchovies, capers, green or black olives, marinades, pickles, tomato jelly, radishes, fine-flavoured table mustard, in short, the best condiments you can command, so that there may be a choice for different appetites. Do not listen to the tirades of the partisans of physiological doctrines, who, from an idle fear of increasing the gastric affection under which they labour, dread and eschew the very things that would cure them.

As a general rule, all stews and ragouts prepared with butter or oil, or wine or vinegar, ought to be strongly seasoned (with bay-leaves, thyme, tarragon, garlic, pepper, pimento, cloves, &c., according to circumstances). All cream or milk dishes or messes should be flavoured with vanilla, or orange flower, or cinnamon. Fishes broiled on the gridiron should be cut open on removing them from the fire, and served with mustard sauce. Roast your joints always before an open fire; never have them baked. Stuff your joints, and more particularly roasting pork, with sage, thyme, and bay-leaves; pepper them plentifully, and baste them assiduously with the juice that drips from them. Or the following is a still better way, for pork, and legs and shoulders of mutton: make a sauce with vinegar, mashed garlic, bay, thyme, sage, cinnamon, pepper and salt; put the joint into this sauce, and keep it there for four days, taking care to turn it frequently (legs and shoulders of mutton should besides be stuffed with garlic). Roast your joint now nicely, and baste it with the remainder of the sauce. It will eat like venison.

A good salad is the most agreeable condiment, and the best promoter of a digestion fatigued by a long dinner. The proper way of preparing a salad is, to mix the salt, pepper, and vinegar first in the bowl, to add the proper quantity of oil, and to turn the salad well about in this sauce. Celery salad requires the addition of a fair proportion of mustard to the sauce. For endive salad, the bowl ought to be rubbed with a clove of garlic, and some bread crusts rubbed with garlic added; the addition of some wild and bitter endive will be found an improvement. To lettuce salad also, rubbing the bowl with garlic imparts a finer flavour. Breakfast salad is made best of Cos lettuce and hard-boiled eggs; you may add to it also, a few sprigs of chervil and slices of eschalots.

We will now give two receipts for the proper preparation of marinades or pickles.

1. VEGETABLE PICKLES.

Take of best wine vinegar, 1 quart.
Salt, 1¾ to 2 oz.
Bay leaves, 3 drams.
Cloves, } of each 1½ dram.
Black pepper in grain, }
Cinnamon, 2 scruples.
Mace, 1 scruple.

Let the mixture macerate for several days in a well-closed jar; fill up with as much as the liquid will contain, of either red-cabbage leaves, or gherkins, or pealed and cut apples, or green walnuts, or French beans, or asparagus, or mushrooms, or artichoke bottoms, &c., &c. At the end of a month the liquid is poured off, the vegetables are well drained, and then replaced in a fresh pickling fluid prepared exactly like the former.

2. PICKLED MEAT—MEAT MARINADE.

In best wine vinegar, 10 quarts, let infuse for 24 hours
Bay leaves, } of each 2¼ oz.
Black pepper in grain, }
Cloves, } of each ¾ oz.
Cinnamon, }
Mace, 2 scruples.
Garlic, 2½ drams.
Salt, 2½ lbs.
Saltpetre (nitrate of potass), 4 oz.

On the other hand, take the large gut of the pig, or of the ox, or sheep, wash it thoroughly in pure water, and finally in water mixed with salt and vinegar, until it has lost all smell.

Half fill the jar containing the pickle with these guts; then fill up to the top with ox-tongues, or with pieces of pork, of about the same size as the tongues.

Let the whole macerate for four days, taking care to turn the meat repeatedly; stuff each tongue or piece of pork in a gut, and tie the two ends securely with thread; the pieces of pork must be well greased all over with fresh hogslard, before putting them into the gut. Boil the whole now for two hours, in a cauldron filled with salt water, into which throw a bundle of thyme, fennel, sage, bay, onions, or eschalots. After two hours of uninterrupted boiling, remove from the fire. These marinades keep a very long time; they constitute, more particularly for children in boarding schools, a most savoury and wholesome breakfast.

Of course, in the receipts here given, we have simply indicated the relative proportions of the several ingredients. The absolute quantities will always depend upon the greater or lesser amount of matter which it may be intended to pickle. It may still be mentioned, in addition, that if you want to pickle other meats besides ox-tongues or pork, you must always take care to grease the pieces well all over with hogslard before putting them in the gut.

With respect to the cellar department, we recommend those that are blessed with the goods of this world to prefer the light French wines (the so-called *vins ordinaires*) to the fine sorts, and *either* to the heavy Spanish and Portuguese wines. But more particularly would we warn persons of more humble fortunes never to buy the abominations that are sold, "dirt-cheap," under the name of "port" and "sherry": they are downright poisons, and will ruin the very strongest constitution. If you cannot afford to drink *good pure* wine, abstain altogether from drinking wine. Beer, *if good and pure*, is a most wholesome and excellent beverage; a glass of good stout, or porter, or ale, is worth, over and over again, the trash that is but too often palmed on the public for wine. Unfortunately, it is almost equally difficult nowadays to procure good and wholesome beer; the fact is, the adulteration of articles of consumption has reached such gigantic proportions, that it is really high time to think of the means of checking it somehow; and if the State *cannot*, or rather *will not* do it, private associations must take the matter in hand. We know that by association everything can be accomplished. But in the meantime the reader is advised to buy his beer, if possible, in barrels, from a respectable brewery, to

bottle it, and keep it in the cellar. He will always find this a more agreeable and more wholesome drink than the mixture of treacle and tobacco juice, or still more noxious substances, that is sold by certain publicans and beer-house keepers. Strong and heady ales should be partaken of in great moderation only; the same remark applies, of course, still more strongly to brandy, rum, arrack, whiskey, &c. The comparative purity of these liquors may be tested simply enough: pour a few drops into your hands, and rub them briskly; apply your nose to the palms, and the smell will at once tell you whether you have a pure article, or a fousel oil abomination; the fousel oil, which betrays its presence by its repulsive smell, is a poison that you cannot too carefully avoid. Another test is, the mixing of the liquor with hot water; here again, the smell will at once decide the question: the scent of properly distilled pure liquor is positively aromatic, that of adulterated mixtures more or less nauseous and repulsive.

We will conclude this chapter with a few receipts for the preparation of cordials and hygienic dessert liqueurs.

1. Curaçoa, or Orange-Peel Liqueur.

In 1 quart of good French brandy let macerate for 15 days, in the sun, in a well-corked bottle, about 2 oz. of dry orange-peel, taking care to shake the bottle every day; strain the liquid, and squeeze out what remains in the peel; melt 1¼ lb. of sugar in an equal quantity of water over the fire; let the solution brown a little and pour it finally into the brandy, saturated with essence of orange.

2. Liqueur of Orange Flowers.

Take of Alcohol (21° Cart.), 1 quart.
Orange-flower water of commerce, Sugar, } of each 12 oz.
Mix and bottle.

3. Aromatic Liqueur.—Stomachic Liqueur.—Dessert Liqueur.

Take of Tops and roots of Angelica, 9 drams.
Calamus aromaticus, 4 scruples.
Myrrh, Cinnamon, } of each 2 scruples.
Aloes, Vanilla, Cloves, } of each 1 scruple.
Nutmeg, 5 grains.
Saffron, 1 grain.

Let the whole digest for 15 days, in the sun, in a quart of good French brandy or alcohol of 21° C., taking care to shake the bottle every day; strain the liquid and squeeze out the grounds; add to the liquor 1¼ lb. of sugar, melted over the fire in a pint of water. Bottle, and keep in a cupboard.

This is a most delicious liqueur, and, at the same time, eminently stomachic and cordial. You should take a small glass of it at every meal, and besides, from time to time, one or two table-spoonfuls. You may make it still more stomachic, at the expense, of course, of the taste, by using a larger dose of aloes, even up to four scruples; but this latter quantity should not be exceeded. You may also dispense with some of the ingredients of the receipt if you should find it difficult to procure them; but the aloes, myrrh, cloves, and cinnamon are indispensable.

CHAPTER IV.

PRECAUTIONS AGAINST POISONING.

Poisoning may take place in four different ways, viz., through the respiration, through the food, through internal or external medication, or, finally, through the introduction or inoculation of poisons in the mucous membranes (of the anus, genitals, &c.).

It may be safely affirmed that the irrational mode of treatment of the old school has poisoned more victims than all the professed poisoners in the world could have done. We have, therefore, never allowed an occasion to pass without protesting, with all the energy that we can command, against the use in medicine, under any form or pretext whatsoever, of mercurial or arsenical pomatums and ointments, salts of arsenic, mercury, and antimony (*with the exception alone of calomel and tartar emetic*), salts of lead, copper, tin, gold, silver, &c.; morphia, strychnine, veratrine, belladonna, hyoscyamus (henbane), digitalis (foxglove), hemlock, stramony (thorn-apple),—in short, of any agent that, administered in a certain quantity, may destroy life. Everybody has a right, even in the public hospitals, to forbid his physician to prescribe for him any of these agents, and more especially arsenic and mercury. The relief which these remedies seem to yield at first is most treacherous; they implant in the body the germ of those distempers that are afterwards treated as diseases of a specific character. We have had under our eyes some fearful proofs of the truth of this assertion; some unfortunate victims, the sight of whom should rack with remorse the mind of the practitioner, to whose treatment they may justly attribute their wretched condition.

We meet with numbers of unfortunates who have lost one or both eyes, entirely from the use of mercurial eye-salve in cases of simple ophthalmy (inflammation of the eye).

Nor are there instances wanting of young handsome people, that have lost more than the graces of their face from having entrusted the treatment of an impetigo or tetter to a practitioner who has not been sparing in the use of mercurial preparations.

Rabbe, a liberal writer of the time of the Restoration, who was called in his youth "handsome Rabbe," became so disfigured through the mercurial treatment, that he could not bear any one to look at him, and in the end poisoned himself with opium, to get rid of an existence that had become a burthen to him.

But at that time, at all events, the use of mercury was restricted in a great measure to a certain class of diseases; and medicine supplied, as it were, the place of a species of penal law for certain transgressions. But what can possibly be adduced in excuse or even in explanation of the proceedings of medical practitioners nowadays, who subject to the disorganizing and homicidal action of the mercurial poison, patients suffering from diseases of the most innocent nature and origin, and that actually offer no points of gravity? May we not fairly class the acts of this infatuation of ignorance and empiricism with the crime of homicide, or bodily injuries inflicted from imprudence?

One can hardly imagine to how many and diverse morbid affections the use of arsenical and mercurial preparations may give rise; and distempers that owe their origin to so-called medicinal substances, are much more difficult to combat and cure than natural diseases. Devouring cancers, exostoses, ankyloses, loss of the hair and the teeth, tubercular diseases, pulmonary consumption, caries and necrosis of the bones, frightful convulsions, disgusting fistulæ, madness, paralysis, rickets in children, goitre—all and any of these may result from the use of those treacherous agents. We could give, from our own experience, hundreds and thousands of the most lamentable examples in proof of this assertion.

How often has not the mercurial treatment of the itch, or of the morbus pedicularis of the privy parts, diseases comparatively slight, and so easy to cure by the most innocent means, left to the unhappy victim a legacy of mercurial affections from which no after-treatment could free him! What will be said, one day, of a system that could sanction the ap-

plication of one of the most formidable poisons against flesh-worms and lice, that a simple wash with alcohol or sedative water suffices to destroy! Ah! but our learned physicians never dreamt that, in these affections, they had to deal simply with certain animalculæ, and the effects produced by their presence in the skin; oh no, so simple an explanation would not have been profound and learned enough—recourse must be had to the most impossible and incredible theories, and a treatment to match.

The arsenical and mercurial preparations bring on cutaneous eruptions, that simulate, indeed, the whole range of affections of the skin, but resist every species of treatment with an obstinacy that no spontaneous affection of that organ ever opposes to our method of medication. Indeed, persistence of the symptoms against the application of our method, is with us a safe criterion that we have to deal with the results of arsenical or mercurial poisoning.

But medicine does not enjoy the exclusive privilege of supplying the human organism with these poisons; there are various branches of industry that contribute their share; and people get sometimes infected also with the arsenical or mercurial poison by some unlucky chance. We have had occasion, for instance, to treat several most obstinate mercurial affections, of which the origin was clearly traceable to the circumstance, that, the patient had, at some previous period, being on a journey at the time, slept a night or so at a country inn, in a bed in which an individual under a course of mercury had slept the night before. In most of these inns, what are called clean sheets, are sheets that have been slept in a night or so, and are afterwards simply drawn through water and ironed, instead of being, as they assuredly ought to be, thoroughly boiled and well washed with soap and soda. Travellers would therefore always do well to carry drawers and pillow covers with them, to secure them at all events, from the effects of an immediate contact of the skin with what might be after all, notwithstanding its deceitful appearance of cleanness, very "foul" linen.

When we reflect on the disastrous effects of these poisons, we can hardly help attributing to the action of the mineral salts that are discharged in quantities in the refuse of certain works and factories, and are drunk up by the soil, a number of diseases of otherwise apparently inexplicable origin, that will seize sometimes even upon the most healthy.

Every true lover of his species must ardently desire to see mercury and arsenic henceforth banished, not only from the province of medicine, but also from that of the arts, which will assuredly not fail to find innocent, but in all other respects equally efficacious, substitutes. With the disuse of these poisons we should see disappear nineteen-twentieths of our incurable diseases.

But it is not mercury and arsenic alone of which the old school makes such profuse application; vegetable and animal poisons also, *e. g.* prussic acid, strychnine, morphia, henbane, belladonna, foxglove, &c., play a sad part in what is so boastfully styled "the art of healing diseases." How many cases of patent poisoning do we not see perpetrated every day, under the protecting ægis of a diploma or certificate! Our hospitals, more especially, both in England and on the Continent, would furnish a fine list of cases, were a commission of inquiry appointed to examine into the general mode of treatment adopted and pursued in these houses of suffering. And must it not look like a bitter satire to the impartial beholder, when those same "regular" practitioners, who in their own practice play so culpably with the most formidable poisons, are seen to come forward, both in their individual and in their corporate capacity, with bitter denunciations against some unfortunate vendor of aloes and scammony pills?

We have lying before us a letter from Lyons containing the following almost incredible statement:—A Mr. C——, of Lyons, was suffering, in the year 1837, from the effects of a severe attack of influenza; he consulted one of the medical celebrities of the city, and this gentleman, without troubling himself much about inquiring into all the circumstances of the case, wrote down the following prescription:—

> Take of Strychnine, 8 grains.
> Succory extract, 16 grains.
> Mix, and make into six pills, one to be taken the first day, two the second, three the third.

This prescription was renewed after the third day, with a considerable increase in the number of pills, but each pill containing the same proportion of strychnine, viz., 1⅓ grain. Of these pills, the gentleman solemnly averred in his letter, he was ordered to take every day one more than he had taken the preceding day, so that on the ninth day he had to take five in the morning, and four at night, and had thus actually swallowed in the course of these nine days 45 pills,

containing in the aggregate 60 grains of strychnine. And this medication was continued, according to the statement of the letter, for *forty-six days*, in the course of which the patient had accordingly administered to him above *five hundred grains of strychnine.* But this appears so absolutely incredible, that, not doubting the perfect good faith of the writer, the only possible explanation left would seem to be that the apothecary, being a little more conscientious than the physician, must have substituted for the quantum of strychnine indicated in the prescription, an infinitely smaller proportion of that formidable agent. But, however this may be, the results of the treatment, though short of death, were lamentable in the extreme. Cramps and excruciating pains in the stomach; spasmodic jerking of the limbs, to such a degree as to throw the patient out of bed; fits of fury; most violent cerebral fever; finally, paralysis of the lower extremities, incontinence of urine, and involuntary voiding of the excrements; impotence and total insensibility of the genital organs; falling off of the nails; continual itching; disjunction of the lumbar vertebræ, with exostosis. In short, the unfortunate man writes that he is one mass of suffering from the crown of his head to the soles of his feet; he has written his letter with immense difficulty, with the left hand, being altogether unable to use his right—another addition to the fearful catalogue of his sufferings.

It may perhaps answer a good purpose to append here a list of those arsenical and mercurial preparations that most enjoy the enlightened patronage of the profession. We would entreat the reader never to take any prescription in which these two formidable poisons may happen to occur disguised under any of the names given in this list.

1. Arsenical *remedies.*—Fowler's solution or liquor, and Fowler's powder; Pearson's solution or liquor; liqueur de Biett (Biett's solution); Fontaneilles's powder; Asiatic pills; Biett's pills; Barton's pills; Boudin's pills; Donovan's potion; Brother Cosmo's powder; Dupuytren's powder; Trousseau's cigarettes; pommade de St. Louis; Lanfranc's collyrium, &c.

2. Mercurial *remedies.*—Olivier's biscuits; Van Swieten's liquor, or potion (solution of corrosive sublimate in brandy or alcohol); syrups of Larrey, Bellet, Lagneau, Cuisinier, Charles Albert, Giraudeau de St. Gervais, Velno; Plenck's pills, Neapolitan pills, Baudelocque's pills, Ricord's pills;

citrine ointment, Neapolitan ointment, gray ointment, brown ointment; Sichel's pomatum; Mettenberg's antipsoric water or lotion; pomatums of Dupuytren, St. Yve, Grand-Jean, Desault, Gibert, Monod, Villan, Zeller, Cazenave, Duchesne-Duparc; pommade du Régent (the Regent's pomatum—name derived from the Duke of Orleans, regent of France); black wash, yellow wash, &c., &c.

The sale of arsenic ought to be absolutely prohibited, and this prohibition ought to extend also to ratsbane, from which the arsenic may always be eliminated by those who may require it for guilty purposes. Moreover, ratsbane mostly fails to destroy the rats as long as the animals find water enough to drink; traps prove much safer and much more efficacious engines of destruction to them.

We would also request painters to substitute for the arsenical compound known as Scheele's green, the green which we made known about five years ago, and which is composed simply of iron and copper. This green is as beautiful a colour as Scheele's, and has besides the advantage of greater cheapness.

Bird-stuffers are in the habit of using arsenical and mercurial solutions to protect, against the voracity of insects, the skins of quadrupeds and birds which they stuff. This is a proceeding fraught with the most pernicious and even fatal consequences to themselves, and to the collectors and curators of museums of this branch of natural history. The object in view may be attained as fully, and in a perfectly safe manner, by impregnating the internal surface of the skins newly stripped off with a solution of aloes and pepper, to be sprinkled over subsequently with camphor powder.

With respect to accidental poisoning, people may guard against some of the chances of it, at all events, by using only plates and dishes made of crockery, pipe-clay, or porcelain; vessels of copper thoroughly tinned; tin vessels, cast-iron vessels; spoons and forks of silver, or tin, or tinned iron, but on no account of German silver, or any other composition pretending to imitate gold or silver. Such compositions are rarely harmless, even though the articles made of them be actually gilt or silver-plated. The art of preparing a composition in every way capable of replacing gold or silver remains as yet to be discovered; when it is discovered, we shall have found the famous secret of the philosopher's stone. Kitchens and dining-rooms should be kept scrupulously

clean, and sheltered from noxious or dangerous emanations; and should have no communication whatsoever with factories and shops where poisonous substances are employed. The cleanness and neatness of the kitchen, and of the utensils therein, may always serve as an excellent criterion wherefrom to judge of the condition of the household.

Workmen employed in the preparation of colours, or other substances in the composition of which mineral poisons enter, should invariably, when leaving work, at meal-times, or at night, wash their heads in plenty of water, and their hands first in weak lye-water, afterwards in soap-water.

As regards the crime of wilful poisoning, which is assuming truly frightful proportions, the only *effectual* check that could possibly be devised against it (leaving out of consideration the moral improvement of mankind, which, of course, would tend more to free society from this plague-spot than all that precautionary and penal enactments could accomplish) would be the absolute prohibition of the sale of poisonous substances. It must be confessed, however, that the passing and subsequent carrying out of a measure of so absolute and sweeping a nature could hardly be demanded, under present circumstances, from the legislature and the government; but *something* might assuredly be done to check the evil in some measure. The establishment of a competent sanitary police would in itself go a great way towards the accomplishment of the desired object. It might also be a question for consideration, whether it would not be advisable to subject physicians' prescriptions of a dangerous nature to the control of a competent body of the kind; and to make the apothecary who shall dispense a dangerous preparation equally responsible for the consequences which may ensue, with the physician who has prescribed it. We maintain absolutely—and we defy contradiction—that the materia medica of the old school contains not *one* agent of a deleterious or dangerous nature, of which the therapeutic effects may not be as fully and effectually produced by an innocuous substance.

CHAPTER V.

ADVICE ON THE MEANS OF GUARDING AGAINST THE INFLUENCE OF EXCESSIVE HEAT OR COLD, AND THE SUDDEN VARIATIONS OF THE TEMPERATURE.

The length of our life would equal the fabulous longevity of the inhabitants of the sea, if we could manage to maintain

in every season a constant and invariable temperature around us. Manual labour realizes this hypothesis to a certain extent: through the caloric which it disengages, it preserves us from the cold of the winter, and through the perspiration which it causes, from the heat of the summer. A sedentary life is the most opposed to the realization of this hypothesis: people of sedentary occupations or habits live in a state directly opposed to the plainest prescriptions of nature; for nature has created and fitted man for an active life. It is, therefore, more especially to literary people, office-clerks, persons of sedentary occupations, studious people, and pupils at school, that my advice is addressed here.

Never leave your habitation in winter without putting on an additional garment; never enter it without taking this off again. The present cut and fashion of the gentleman's hat is the very height of absurdity; it corresponds by no means with the natural dignity imprinted on the brow of man; it weighs heavy on the brain, chills the head, and affords no protection to the neck and throat against the inclemency of the weather. Emancipate yourselves from the trammels of an absurd fashion, and replace the conical abomination, which is neither useful nor ornamental, by the broad-brimmed wide-awake, or rural hat, made of undressed felt, which, from its pliancy, readily adapts itself to every form of head, and, from its broad brim, imparts additional dignity to the wearer. It affords, moreover, most effective protection both against the heat of summer and the inclemency of winter.

If you are obliged to be out in the cold or damp morning or evening air, have a cowl or hood to your cloak; you will find it an excellent preventive against colds.

Wear strong and solid boots or shoes in winter; many cases of illness arise entirely from the imprudence of walking about in rain and snow in patent dress boots, pumps, or elegant light shoes.

Replace the umbrella, which affords no real protection against the rain, by a hooded cloak made of light impermeable gauze, and which, folded up, might actually fit in your waistcoat pocket. Instead of encumbering yourself with a parasol, wear a broad-brimmed straw hat.

Wear flannel next the skin both winter and summer. Frictions of the chest with camphor pomatum, morning and evening, are an excellent preservative against the effects of sudden variations of the temperature. A wadded morning

gown is the best and most comfortable dress for the library or study.

Avoid draughts; do not expose yourself, lightly clad, to the chilliness of the night. Cold and damp dwellings are one of the most prolific sources of disease.

Damp cellars and kitchens or ground-floors may be made dry and comfortable by the following process:—Take up the flags or bricks of the floor (presuming always, of course, that the apartment is not boarded), cover the earth with a layer of iron filings and coal-dust six inches deep; coat this over with a layer of asphaltum one inch deep, and on this replace the flags or bricks. Dissolve four ounces of yellow wax in ten pounds of spirits of turpentine, and keep the solution on hot ashes. Dry two square feet of the wall (presuming this to be coated with plaster or mortar), by means of red-hot coals in a chafing dish; when you consider this part sufficiently dry, spread a thick layer of the wax and turpentine composition over it with a painter's brush; the composition will penetrate into the wall to the depth of a third of an inch. Dry in the same manner as before the two square feet of wall adjoining the first, and cover them equally with a layer of the wax and turpentine composition; proceed in this way until all the damp parts of the wall are properly coated; but take care always that the wax does not stop at the surface. When the whole operation is completed, you may paint or paper the room; you will find it ever after perfectly dry.

The rooms and apartments in scholastic and public institutions, barracks, prisons, and hospitals ought never to be scoured; the boards should be washed and dry-rubbed.

The school-rooms, parlours, and dormitories in public schools, and in boarding-schools, should always be properly heated in winter. The sudden transition from the violent exercise of the play-ground, to the benches of the cold school-room, may produce the most lamentable results. Economy in matters of this kind is very ill judged, to say the least of it.

CHAPTER VI.

PRECAUTIONS AGAINST THE INTRODUCTION INTO THE ORGANIC TISSUES OF SPLINTERS, PRICKLES, AWNS OR ILES, AND IRRITATING DUST PARTICLES.

A splinter or prickle run into the hand or some other part of the body causes a local inflammation; some prickles or iles

may, from the peculiarity of their structure, which opposes a retrograde movement on their part, make their way to our innermost organs. Spikes of corn, &c., but more particularly the spikes of wild barley, taken incautiously into the mouth, will gradually reach the lungs, and give rise to more or less serious affections of these organs, and after having placed, perhaps, the very life of the patient in danger, they will finally issue through the side. The breathing of air impregnated with certain kinds of dust may, and often will, give rise to alarming inflammations of the chest. Among the kinds of dust susceptible of producing such unwelcome results, may be mentioned more particularly, the dust which arises in mills and granaries, when they are swept, or in barns where corn is thrashed; the dust that falls from trees during the operation of pruning, or from plantain when in fruit, or from trees inhabited by colonies of the processionary or some other hairy species of caterpillars; the dust of rooms kept untidy, and wainscoted with worm-eaten wood. Most of these kinds of dust are composed of minute pointed iles, or other particles of a similar structure, and which accordingly are not susceptible of retrograde motion.

Have your chamber or apartments always kept scrupulously clean. We repeat here once more, that, in our opinion, the waxing and dry-rubbing of the floor is the best and most effective mode of cleaning; it raises no dust, and serves, besides, to crush and destroy the vermin that may have been engendered in the room. Do not crowd your apartments with useless furniture.

It is to be regretted that the use of glass tissues is getting into fashion again. This had been very properly abandoned in the eighteenth century, because it was found that the pulverulent particles of the broken threads of spun glass wigs affected the lungs most seriously, and often even fatally. The revival of this branch of industry is most objectionable in an hygienic point of view.

The dust of the fields raised by the wind may become the cause of epidemic vermicular affections, as it is often composed in great part of a multitude of eggs of intestinal worms, that have been engendered in the offal and other impurities deposited on the field, and have been subsequently reduced to dust by the heat of the sun. Pallas attributes to this cause alone the epidemic tape-worm affections that are so frequently observed in Dorpat and other towns on the shores of the Baltic. The interests of public health imperatively demand, therefore,

that a strict enactment be passed, and rigorously carried out, prohibiting the deposition of any species of filth or rubbish in the public streets or on the highway; the dung carried on the fields ought to be at once buried in the soil, and the liquid manures immediately transformed into *poudrette* (by means of lime).

CHAPTER VII.

PREVENTIVE AND CURATIVE MEANS AGAINST THE INTRODUCTION OF FOREIGN BODIES THAT GERMINATE OR SWELL UP IN THE CAVITIES OF OUR ORGANS.

Persons in the habit of sleeping in the open air and under trees, are subject to ear-ache, and other affections of a similar kind, which are caused simply by the introduction of seeds or ears into the auditory tube, the nasal chambers, the wind-pipe, &c. The same accidents will occur, also, to people sleeping in garrets, on straw or hay. The spreading of a cloth or handkerchief under the head, and the use of a nightcap, will in a great measure prevent such accidents. Where there is reason to suspect that a seed, or ear, or other foreign body of the kind, has found its way into the ear, nose, or wind-pipe, &c., the sound and the pincers must be had recourse to; or the expulsion of the foreign body may be effected also by injections of tar-water. The fever which usually accompanies the pains caused by the irritating presence of any of these foreign bodies, is combated by applications of sedative water (see Part II., 48) to the invaded region.

CHAPTER VIII.

ON THE EXTERNAL AND INTERNAL PARASITISM OF INSECTS AND WORMS.

In the list of causes of the aches and diseases that torment and endanger our existence, the action of parasitical animalculæ may certainly be said to rank highest. Nature has so ordained it, that one species of animals should be delivered over to the voracity of some other species. Mankind feeds on a multitude of animals; and many animals, in their turn, feed on man whenever they can get a chance. The tiger, the lion, the boa-constrictor, the bear, the crocodile, &c., are all of them intent on hunting for man, the same as man

hunts the stag, the boar, the hare, the pheasant, &c. Against the strength and power of these colossal causes of illness and death, the only preservative and salvation of man is in his dirk and in the barrel of his rifle; and when a surgeon is ever called in in such cases, the cause has already been got rid of, and he is only called upon to combat and cure the effects.

But there are multitudes of infinitely small animals that are quite as fond of human flesh as lions, tigers, or bears can possibly be, and that are only the more dangerous for their minuteness, since this withdraws them in a great measure from ocular observation, and permits them to hide in the very depths of our tissues, in the innermost recesses of our organs, where they may occasion the most serious disturbances of the functions, without anybody, and least of all the physician, being able to guess the cause. For more than two thousand years has scholastic medicine been, under every imaginable form, the sport of the doings of these infinitely small creatures, which seize upon man from the cradle, and attend him to the grave, to deliver him even there to the fangs of still more greedy devourers. Fortunately, Hippocratic medicine has now seen its day; Natural History, aided by her two sisters, Physics and Chemistry, will in future take its place. The microscope is going to lift the mask from many hitherto incomprehensible and intangible forms of human suffering, and to replace the gibberish of the school, founded on the supposed influence of the *blood, bile, nerves, black bile, phlegm, peccant humors*, &c., by the positive language of the sciences of observation. Since the appearance of our natural history of health and disease, ("Histoire Naturelle de la Santé et de la Maladie,") every philosophic mind must have arrived at the conviction, that all those diseases that are not produced or occasioned by one of the causes treated of in the preceding chapters, nor owe their origin to moral affections, are the work of parasites that have taken up their quarters in our organs and tissues. Ticks, lice, bugs, fleas, &c., are the parasites of the skin. Ascarides, teres, hydatides, and the tape-worm are the parasites of the viscera, and more especially of the intestinal canal. Children of both sexes, but more particularly young girls, and females living chiefly on milk and mucilaginous substances, are more liable to the attacks of intestinal worms than men that live on stronger and more nutritious food. It often occurs that infants who, whilst at nurse in the country, were fine and healthy, become ailing

after their return home; in most instances this is owing to the change from the aromatic, and, therefore, vermifuge food which they had been drawing from the nurse's breast, to a diet of sweets and biscuits, aliments which the intestinal ascarides will thrive on much better than the child. These parasites, therefore, invade now the intestinal canal in multitudes, and cause a variety of morbid symptoms, which the physician, however, seldom dreams of attributing to their presence, except the little patient chance to void some of them. But where this ocular demonstration is wanting, the morbid symptoms are boldly charged on the bile or on the blood; or the disease is baptized "lymphatism," "cachexy," "enteritis," &c. The child is put on a system of total abstinence from food, and made to swallow every possible description of ptisan, which the ascarides rather like than otherwise; leeches to the abdomen, &c., are also had recourse to; but they trouble their intestinal colleagues very little. And thus the unfortunate little sufferer is brought lower and lower, and a malady which a proper change of food might have cured in 24 hours, is gradually led to a fatal termination. Our hygienic regimen (see Part III., Section I.) will protect children and females against a fresh invasion of these redoubtable parasites; and, on the other hand, our curative system is based, in a great measure, on the fact revealed by long and careful observation, that by far the greater number of our diseases are the work of parasites, and more particularly of intestinal worms.

CHAPTER IX.

ON THE MORAL CAUSES OF DISEASES.

Nature has given us reason for a guide to point out to us present danger; to enable us to foresee those that threaten in the future; and to teach us to profit by the recollections and experience of the past—that we may know how to repel the former, and how to protect ourselves beforehand against the threatened attacks of the latter.

The perception of present danger dismays or appals us; the prevision of future danger saddens or disheartens us; the recollection of past danger is a remorse, where it is not a lesson or a satisfaction.

An attentive examination of the mechanism of those phy-

sical disorders that emanate from moral causes, leads to the conclusion that the moral causes of our diseases may be briefly summed up as follows: shame or disgrace, remorse, grief, and fear or apprehension.

Madness is a physical disorder occasioned in the organization of the brain, either by a material injury, or by a moral impression. The affection is curable or incurable, according to whether this injury or impression is susceptible or not of being repaired or effaced.

Disgrace, remorse, fear, may strike with the suddenness of lightning. The morbid alteration occasioned by their agency is the more serious the deeper the impression, and the greater the importance which we may attach to the cause of our disgrace or remorse, or to the object of our apprehensions. Thought, that elaboration of the brain, has the power to concentrate all the faculties of that organ on a space too limited to contain them, and which seems to break under the effort. This explains how one single all-engrossing idea may have the power to kill.

Diseases emanating from moral causes may be expected to become the less frequent the more the state of society shall improve. A well-organized society ought to be a kind of mutual insurance association, where every member contributes his share towards the maintenance of the whole body, and claims in return from the latter security for his own subsistence; where the errors and offences of the past may be redeemed and effaced by the good-will and upright actions of the present; where man, having to dread nought on the part of his fellow-men, need have no anxiety about the future, except in so far as natural causes (inundations, conflagrations, famines, &c.) may influence it. But, alas! our present state of society is the very reverse of what it ought to be, and offers certainly no protection or preventive against the fatal operations of the moral causes of our diseases.

Still the *wise* man will seek, and, in most cases, also find that protection in philosophy and resignation: the former reduces to its simplest expression the weight which we attach to the cause or object of our remorse, dread, disgrace, apprehension, grief, sorrow, &c.; the latter enables us to bear our sufferings calmly. How many ills might not man escape, if he would only learn to appreciate at their just value the blessings and troubles of life! Truly, their duration is so short, that more time passes in the hope or dread of their approach, than in their actual enjoyment or endurance.

Let us early learn to look upon life as a duty, upon death as an accident or a necessity.

Guard against the suggestions of hatred and the aberrations of love.

Avoid enervating pursuits and expensive pleasures.

Be economical, but never avaricious. Imitate not those with whom the acquisition and hoarding of wealth, by every and any means short of transgression of the law, forms the sole and all-engrossing pursuit of a long life: that ill-gotten wealth, for which they labour and strive so hard, for which they so heavily burthen their consciences, to which they sacrifice every joy and blessing that this earth affords, will not benefit them; and almost invariably it will pass from their reluctant grasp in death, into the hands of the prodigal and spendthrift.

Avoid disputes and lawsuits; the trouble, vexation, and anxiety inseparable from them are most formidable enemies to health and happiness.

PART II.

DOMESTIC PHARMACY, OR PRACTICAL INSTRUCTION IN THE PREPARATION AND ADMINISTRATION OF THE MEDICINES USED IN THE NEW METHOD OF TREATMENT.

THE preparation of a medicine offers no greater difficulty than that of any article of food. In the same way as we wish to teach every one to become his own physician, so we wish to instruct every one to become his own apothecary. The present treatise on the preparation of medicines will not injure the regular apothecary, any more than Carême's treatise on the art of cookery has injured the professed cook. The diffusion of the knowledge of the principles and mysteries of an art, by no means tends to destroy the position of the regular practitioner of that art; but by placing him, in a measure, under the enlightened control of the purchaser and consumer of the products of his industry, it serves to stimulate his diligence and zeal in the exercise of his art. The rich man has rarely the patience or the time to compound his own medicines, and will continue to procure them from a regular apothecary, though he may himself have a perfect knowledge of pharmaceutical operations. To the poor man, on the other hand, this knowledge will prove a great boon; for, without it, he might be obliged to dispense altogether with the use of a medicine, even though imperatively required by his state of health, simply because he is not possessed of the means to pay the heavy fees of the apothecary. The latter will thus be no great loser after all. Besides, there are many localities without an apothecary, and where it will accordingly prove of great benefit to the residents if there happen to be at least some one among them capable of compounding and administering the remedies employed in our new mode of treating diseases.

I hope the time is not far distant when instruction both in the culinary art and in the art of compounding medicines will form an essential branch of female education.

The medicinal preparations which constitute the dispensatory of our method, are arranged here in alphabetical order. The simples, &c., set down in the prescriptions and recipes should be procured from Apothecaries' Hall, or from some other pharmaceutical warehouse of known respectability, in order to ensure their genuineness.

In the course of the following chapters we shall have frequent occasion to refer to the indications of an instrument called the *Areometer*, which serves to ascertain the *density* of liquids. By the *density of a liquid* we understand the weight of a given volume of that liquid, compared to the weight of an equal volume of another liquid. Oil and alcohol, for instance, are less dense than water; since, if a certain volume of water weighs 1000 grains, or drams, or ounces, or any other term of weight, an equal volume of oil will be found to weigh 915 grains, &c., and an equal volume of anhydrous alcohol 790 grains, &c.

Now, the areometer is an instrument so contrived that it will sink the deeper in a liquid the less density that liquid possesses. The instrument consists of a graduated glass tube; the degrees are marked by horizontal parallel lines cut into the glass. The zero is marked at the exact point to which the instrument will sink in a saturated solution of sea-salt in water (or, expressed in other words, to which the surface of the solution will reach). From this point the graduation proceeds up to 100 in the centigrade areometer.

We say a liquid *weighs* 20, 25, 30, &c., degrees centigrade, if the centigrade areometer sinks down in it vertically to line 20, 25, 30, &c., marked on the instrument.

However, the centigrade areometer is not the one most in use in commerce; nor is it often referred to in pharmaceutical and chemical works published on the Continent. Cartier's areometer and Baumé's are much more generally used. Both of these latter instruments are divided into 50° only; but Cartier's graduation differs again from Baumé's in this much, that 19° Cartier corresponds to 20° Baumé; 20° C. to 21° B.; 22° C. to 23° B.; 28° C. to 30° B.; 34° C. to 36° B.; 37° C. to 40° B.; and 40° C. to 44° B.

The following Table shows the relations which the respective scales of Cartier's areometer and the centigrade bear to each other.

Cartier.	Centigrade.	Cartier.	Centigrade.
16°	37·2	29°	76·3
17	41·4	30	78·3
18	45·4	31	80·5
19	49·1	32	82·5
20	52·6	33	84·4
21	55·8	34	86·3
22	58·6	35	87·8
23	61·4	36	89·6
24	64·3	37	91·3
25	66·8	38	92·7
26	69·3	39	94·2
27	71·6	40	95·4
28	74·2		

CHAPTER I.

ALOES AND DECOCTION OF HERBS.

1. Aloes is a gum-resin of ready solubility, both in alcohol and in water. The best sort (*Aloes succotrina*) is sold in large pieces, looking like pieces of bottle-glass taken out of the furnace in a shapeless state. The colour is shining black by reflected, yellow by transmitted, light. Aloes has a characteristic smell, and a most intensely bitter taste. The price of it is very moderate—a few pence per ounce, and two or three ounces will last you a long time.

Crush the large lumps on a stone, or in a mortar, to reduce them to pieces of about the size of a grain of wheat; separate the finer particles through a sieve, and put them by to give the children, the larger pieces being kept for grown-up persons.

The dose is, for adults about five grains, for children two or three grains. The best way of taking aloes is to place the little lumps of that substance on the tongue, and to swallow and wash them down with a draught of water; taken this way you will hardly perceive its bitterness. To children it may be given in the same way, or, should this prove impracticable, in raspberry jelly, or in the pellicle of a grape or gooseberry, which they are made to swallow in the same way as a pill.

The dose for large animals is one ounce, for animals of smaller size half an ounce, dissolved respectively in a decoction of bran in water, which the animals must be made to swallow.

The dose for a clyster is two grains dissolved in boiling water. Aloes may be taken at any hour of the day; yet the most convenient time is just before dinner, since, when taken at that time, the aloes produces its effect by about five or six o'clock next morning, which leaves the patient free for the rest of the day. The night's rest tends to promote the action of the aloes. To make quite sure of this action, the patient should take at night, just before going to bed, a large basin of decoction of herbs, prepared after the following recipe:—

2. *Decoction of Herbs.*

Take of Water, a quart.
Sorrel, Chervil, } of each a handful.
Scallion, one stalk.
Butter, a large table-spoonful.
Salt, a large pinch.

Heat to boiling, and keep on the boil five or six minutes that the sorrel may be thoroughly macerated.

Another basin of this decoction may be taken in the morning just before going to stool.

We prefer aloes to any other purgative, since this substance combines with the drastic properties inherent in the acid, and the salts which are numbered among its constituents, the vermifuge property of its bitter principle. It exercises also a most beneficial action in suppression of the menses. The vermifuge action of the aloes extends over the entire length of the intestinal canal.

A dose of five grains will sometimes fail to produce the desired purgative effect; in such cases a second dose of 10 or 15 grains and more should be administered.

Some persons are more strongly affected by one grain than others by five grains. But even in cases where the aloes fails to act as a purgative, it still exercises its action as a vermifuge. It is a most efficient remedy against stomach ache and colic, where camphor has failed; it restores the appetite, dispels gastric obstructions, promotes digestion, triumphs over the most obstinate constipation, expels the worms from the stomach, and gradually frees the patient from them altogether.

It is more particularly on account of its vermifuge virtues that we prescribe a dose of aloes every fourth or fifth day, as a hygienic measure.

The pills *Antecibum, Anderson's, Bontius', Horse's, Harvey's, Morrison's, Peter's* pills, the *Life* pills, *Purging* pills, &c., &c., have one and all of them aloes for their base, compounded sometimes with jalap, scammony, colocynth, or gamboge; they simply operate somewhat less mildly than the pure aloes, and are a great deal dearer, since, in pharmacy, the name is usually paid for more highly than the thing.

CHAPTER II.

WARM BATHS.

The proper temperature of a warm bath depends in a great measure upon the season, and also upon the constitution and temperament of the bather. As a general rule, we think 96 to 98 degrees Fahrenheit will be found to agree best with most constitutions; no one should ever enter a bath heated beyond 104 degrees Fahrenheit. The temperature ought invariably to be determined by the thermometer. If you take a bath in a public establishment, never venture on turning on the cocks, lest you should turn on the boiling water, by mistake, instead of the cold; the wiser course is to summon the attendant.

SECTION I.

3. *Sedative or Alkaline Ferruginous Baths.*

a. Large-sized baths.—After the first two or three pails of water, put into the bath

Ammonia, saturated with camphor, 6 oz.

Salt, 5 lbs. (troy).

Fill up with the proper quantity of water, and stir briskly with one or two large shovels made red-hot.

N.B. The saturation of the ammonia with camphor is effected by adding to eight ounces of ammonia a large wine-glass of camphorated alcohol (see chapter v.), and shaking the mixture in a close-stoppered bottle. The bottle is then immersed, neck downwards, in the bath, the stopper removed, and the contents let run out into the water.

b. Middle-sized baths, and large-sized baths for fat and

bulky persons, who displace a considerable volume of water.—The quantity of camphorated ammonia is reduced to 3 ounces, that of the salt to 2½ pounds troy.

c. Baths for children.—The quantity of camphorated ammonia is reduced to 2 ounces, that of the salt to 8 ounces.

These baths are taken every five or six days, until the patient feels completely relieved from the affection against which they were ordered. Persons subject to dry burning heats, accompanied by lassitude, should take one of them whenever they feel an attack coming on. This bath should always be taken sufficiently warm, and the patient should leave it in about 20 minutes, or even before, if he feels the water getting cold. Upon quitting the bath, wipe the body dry, rub your head well with camphorated pomatum, and have yourself rubbed all over with the same, for about 10 minutes, standing on a cushion; have this friction applied more particularly to the chest, the back, between the shoulders, and the loins.

The alkaline ferruginous bath produces the happiest results in cases of fever, rheumatic pains, lumbago, paralysis of the limbs, affections of the liver, kidneys, womb, urinary passages, chorea (St. Vitus's dance), hydrophobia and raging madness, intoxication, fulminant apoplexy, and delirium tremens.

The ingredients of the alkaline ferruginous bath do not injuriously affect any of the materials of which baths are usually made (marble, wood, zinc, tin).

Section II.

4. *Local Baths*—Same temperature as the general bath.

a. Leg and foot bath.—Choose a cask sufficiently deep to admit of the immersion of the leg up to above the knee. Pour into the cask a strong decoction of elder flowers and tar, and a quart of sedative water (see chapter xx.); slake a red-hot shovel in it.

b. Foot-bath and *hand-bath.*

Take of Flower of elder, a handful.
Tar, the size of a pea.
Salt, a handful.

Boil in a sufficient quantity of water, and slake in the decoction a red-hot nail or key.

When this decoction has cooled down to the desired temperature, pour it into a wash-hand basin; add a glass of seda-

tive water, and a large handful of bay-salt; slake a red-hot key or nail in it.

c. Common foot-bath.—Dissolve a pound of bay-salt in the requisite quantity of water of the proper temperature for a bath.

d. Hip bath, in affections of the anus. Use the same decoction of elder flowers, tar, and salt, as sub *b.*

e. Bath of the sexual parts.

Take of Decoction of elder flowers, tar, and salt, as sub *b,* 1 quart.
Camphorated alcohol (see chapter v.), 1 oz.
Sulphate of zinc, 2 drams.
Mix in a wash-hand basin.

CHAPTER III.

5. *Baths of Blood.*

We have in several cases of deviation of the spine and softening of the bones, obtained the happiest results from the administration of baths of bullocks' or sheep's blood.

These baths are administered in the following manner:—the patient is placed, with the affected part under the gush of the blood which flows from the opened vein of the animal; when the blood ceases to flow, the patient is wrapt in a sheet, and laid down in the sun, or, should the heat be too great, in a shady spot which the sun has only recently left. As soon as the blood forms a crust on the skin, it is removed by means of a light brush, and the body subsequently washed with water mixed with camphorated alcohol.

The bath should be repeated every day, if possible. If the patient has not got the means to have it administered to him at home, or in a slaughter-house, the blood of a fowl, pigeon, or other domestic animal may be substituted for that of the sheep or bullock, and the efficacy of the bath may be increased by applying the warm and still palpitating flesh of the animal to the affected parts, by way of poultice.

These baths of blood produce the happiest results in rickets, swelling of the bones, gout, phthisis (pulmonary consumption), general or partial paralysis, &c., in all cases where these affections owe their origin to mercurial poisoning.

The theory and *rationale* of their action will be understood from the following explanation:—We absorb poisons through the surface of the skin as well as through the surface of the

intestinal and other mucous membranes; the difference between the two in this respect is only one of degree, the mucous membranes absorbing more readily and vigorously than the skin. This is a demonstrated fact: prolonged contact with poisonous substances infects as much as ingestion of them into the alimentary canal.

A person sharing the same bed with another who happens to be infected with the mercurial poison, will speedily exhibit the same morbid symptoms as the latter. But in imparting a certain quantity of the mercurial poison to the organization of another, the person originally infected will necessarily have got rid of that amount of the poison. This process of communication on the one and absorption on the other part will continue until the two organizations are both equally infected.

Now this communication and absorption can take place only through the circulation; it is in reality the liquids which absorb, since they alone have the faculty of dissolving, and solutions have the tendency to spread uniformly through the whole mass of the liquids of the body.

The faculty of absorption possessed by the blood and the flesh survives the death of the animal, and continues as long as heat remains.

Therefore, if we apply the hot blood possessed still of all its vitality, and the still palpitating flesh of an animal to the surface of the infected portions of the human body, a certain amount of poison will be withdrawn from the latter, proportional to the volume of blood applied in the pure state, or contained in the palpitating flesh. By repeating the same operation from time to time, we may in the end succeed in withdrawing the poison completely from the infected body.

It is from no other cause than the faculty of absorption possessed by the organic fluids, that a healthy nursling will take the infection from a sickly nurse, though brought up by hand; and that we see sometimes the healthiest and most robust girl wither and waste away after her marriage with an unhealthy husband, labouring under the effects of former debaucheries and mischievous medications.

CHAPTER IV.

6. *Calomel* (*Protochloride of Mercury.*)

Calomel is the only mercurial salt ever exhibited in our method of treating diseases; it is the least dangerous of all

mercurial preparations, on account of its exceedingly sparing solubility in water. Notwithstanding this, we use it only as a last and sovereign resource against large teres or others of the larger-sized intestinal worms that have resisted the action of even the most energetic vermifuges taken from the vegetable kingdom. Still, we hope that we may one day be able to dispense altogether with the use of this preparation.

Calomel is sold in the form of a crystalline salt of slightly yellowish tint, or as a white powder resembling flour; it is insoluble in pure water; it blackens under the action of ammonia. Calomel exhibiting a blackish hue is unfit for medicinal purposes, since it has suffered partial decomposition, whereby it loses its comparative harmlessness.

We recommend the use of the crystalline salt in preference to that of the powder, first, because the crystals may be freed more readily and thoroughly than the powder, by repeated washings, from adherent particles of corrosive sublimate (perchloride of mercury) which may have formed during the process of sublimation; and in the second place, because the crystals may be safely given in larger doses than the powder: one grain and a half of the latter will act more energetically than seven grains and a half of the crystals. The reason of this is obvious: the action of a salt so sparingly soluble as calomel must of course increase in intensity in proportion as its particles are more minutely divided; in other words, in proportion to the multiplicity of its surfaces.

But, whether you use the calomel in crystals or in powder, always take care to wash it thoroughly in water before making use of it. This you may readily accomplish in the following manner: throw the calomel into a glass filled with water, let it stand a quarter of an hour, stir it a minute or so, let it settle, and decant the water off; repeat the operation two or three times.

Calomel being an insoluble substance, has no taste, and is therefore administered as easily to children as to adults; it may be rolled up in a little paper, or mixed with bread crumb into a pill, or put in the pellicle of a grape or gooseberry, and swallowed with a little water; or it may be given (to children) between two slices of cake and preserves.

The dose of the calomel in crystals is 4 grains for adults, 2½ grains for children over four years of age, and 1½ grain for infants.

The dose of the calomel in powder is 1½ grain for adults,

$\frac{3}{4}$ths of a grain for children over five years of age, and from $\frac{3}{20}$ths to $\frac{3}{10}$ths of a grain for infants.

The dose is repeated after four, five, six, seven, or eight days, if it fails to produce the desired effect.

A patient who has taken calomel should not eat anything sour, nor drink acid liquids, since the acid would have a tendency to act upon the calomel, and to increase its solubility, and consequently the energy and intensity of its action.

Almost from the very instant that the calomel has been taken, the intestinal worms are felt quitting the stomach which they had invaded, and descending to the large intestine in order to escape from the action of the poison, which, though taken only in minute quantity, is most destructive to them.

Should too large a dose of calomel have been administered from imprudence or mistake, the discharge of liquid stools attended with straining, and from which the calomel subsides and sinks to the bottom of the vessel, in form of a black powder, will spedily reveal the fact. In such cases, sedative water (chapter xx.) is applied to the abdomen, and afterwards a compress imbibed with camphorated alcohol (chapter v.); an emollient camphorated clyster (chapter viii.) is administered, and camphor pomatum or a camphor bougie (chapter v.) introduced into the anus; the patient should also chew a small lump of camphor, and drink milk.

CHAPTER V.

CAMPHOR.

Camphor is an essential oil which combines with the immense advantage of retaining its solidity, even at a rather elevated temperature, antiputrid and vermifuge virtues of a high order; in fact, no other essence can bear comparison with it in this respect. It is universally known that camphor has been used from time immemorial to protect stuffs and furs against the ravages of the moth. Its antiseptic and antiputrid properties are such, that a piece of meat may be kept perfectly fresh for a year in a jar filled with water, sim ply by covering the surface of the water with a close layer of pieces of camphor, which are replaced by fresh pieces in proportion as the camphor evaporates.

For, although a solid substance, camphor evaporates like other essences, and absorbs, like them, oxygen from the at

mosphere. The least volatile portion alone remains, and this, after a time, loses its cohesion, and crumbles into an impalpable powder, similar to that obtained by the evaporation of an alcoholic solution of camphor. Camphor, therefore, not only diminishes in bulk when exposed to the air, but gets coated all over the exposed surface with an impalpable powder, which might be utilized as camphor snuff, were it not that it has lost part of its active principles. However, this loss may be guarded against by covering the camphor with a thick layer of linseed. Thus protected, camphor will preserve its bulk and all its properties an indefinite space of time, even though kept in an open jar.

Our researches and experience have led us to the conclusion that the greater number of our diseases owe their origin to the invasion of the organic cavities and tissues by certain parasitical animals, and to infection through the products of their disorganizing action. Now, against diseases of this origin we could not have hit upon a more efficacious remedy, both to combat and destroy the cause and to neutralise the effects, than camphor.

We have been ridiculed for the importance which we attach to the action of camphor. Ten years' success have, however, placed the truly marvellous efficacy of that medicinal agent beyond doubt. The objection which it has been attempted to start to its application, on the score of its penetrating odour, is scarcely deserving of notice.

The antiaphrodisiac properties of camphor have been greatly exaggerated. It protects, certainly, chastity, and opposes excessive indulgence in the pleasures of love, but it does not cause impotence. By purifying the generative organs, it tends to heighten fecundity in females, to promote healthy breeding, and to facilitate the labour of child-birth.

There are several different sorts of camphor, some of them of very superior, others of very inferior quality. The best sort is the camphor of Japan: but the Japanese use this article so extensively as a remedial agent, that only a small portion is allowed to leave the country. Most of our camphor of commerce comes from Java, Sumatra, Borneo, &c. Of this we distinguish principally two sorts, the one of very indifferent quality indeed, the other of such purity and medicinal efficacy, that the Javanese call it the *universal remedy*, or *cure for all diseases*. This species is derived from the *Laurus camphora*. It is obtained by boiling the stalks and leaves of that plant in water, and is exported in the crude state. It is refined in

Europe by sublimation. The inferior sort of camphor is unfit for medicinal use; it also fails to protect stuffs and furs against the moth; shawls that are sent from India with no better protection than this species of camphor, arrive in Europe all moth-eaten.

Procure your camphor from Apothecaries' Hall, or from some chemist of acknowledged respectability. We deem this recommendation the more necessary, as, besides the inferior and inefficacious sorts imported, a miserable imitation of the real substance is but too frequently palmed on the public. This spurious article is prepared by transmitting a current of chlorine or hydrochloric acid gas through essence of turpentine. You may detect this spurious or artificial camphor readily enough by comparing its fracture with that of the genuine article: the fracture of the artificial camphor presents the appearance of a net-work of pentagonal meshes formed by an agglomeration of small oleaginous looking lumps; at first, these lumps are loosely joined together, and fall readily asunder under the pressure of the finger, but after a few days' exposure to the air, the article acquires greater compactness. The genuine double-refined camphor, on the contrary, is compact, presents a fibrous break, and effloresces in the air, instead of acquiring greater compactness from exposure to it.

Genuine camphor of good quality has the property of restoring sleep, clearing the urine, destroying or putting to flight external and internal parasites, and consequently dissipating cramps and pains in the stomach and intestines, of stopping diarrhœa and dysentery, of curing the gravel, and preventing the formation of stone in the urinary organs. A few doses of camphor powder will suffice, in most cases, to restore to its natural limpidity even the reddest and most turbid urine. The urine of a person taking camphor emits an aromatic odour, and keeps a long time without undergoing decomposition.

Dressing with camphor protects wounds and sores from mortification, erysipelas, and the formation of ichorous matter. Camphor is a sovereign remedy against sleeplessness, nightmare, and dreams of an exciting or terrifying nature; severe indeed must be the sufferings that resist its calming influence. It is taken in cases of sleeplessness, &c., in doses of about one grain, three times a day (morning, noon, and night); a piece about the size of a lentil is chewed and swallowed with a mouthful of succory water (chapter xii.), or decoction of hops (chapter xii.), or water slightly flavoured with tar (chapter xxii.). The following mode of adminis-

tering camphor will be found to heighten its soporific effect. Sprinkle one or two grains of camphor powder over a glassful of sugar-water, add two drops of sulphuric ether, and stir. Drink the mixture before going to bed. You would hardly believe what calm and sweetness this little potion will impart to your repose and dreams.

We have some notion that it was this prescription, published by many years ago, which first led the American surgeons to the idea of etherization to render patients insensible to surgical operations.

In veterinary practice, essence of turpentine is substituted for camphor; the dose is one ounce in a pailful of bran-mash for horses, cows, &c.; a quarter of an ounce in a quart of a pailful of bran-mash for sheep, dogs, &c. This dose should be administered to the animal whenever it is observed to lose its appetite. Water in which a stave of a tar-barrel has been boiled will answer to a great extent the same purpose as essence of turpentine.

We will now proceed to consider the various forms and modes in which camphor is used in our method of medication.

Section I.

7. *Camphor Powder.*

Camphor powder may be prepared in three different ways.

a. Dilute camphorated alcohol (Section III.) with water; this precipitates the camphor in form of a white powder, which rises to the surface; skim it off with a spoon or a skimmer, and let it drain on filter paper placed in any sort of funnel; continue to add water to the alcohol until the precipitation of camphor powder ceases. The alcohol and water adhering to the powder will go off by evaporation. The powder thus obtained is impalpable.

b. Triturate a piece of camphor with a sufficient quantity of alcohol, until the camphor is most finely comminuted; the evaporation of the alcohol will leave the camphor behind as an impalpable powder.

N.B. These two methods, besides entailing a considerable loss of time, and also the loss of a certain quantity of alcohol, do not give a powder absolutely pure and free from alcoholic admixture, which offers this great inconvenience, that the least elevation of temperature, even the warmth of the waistcoat pocket, suffices to re-agglutinate the camphor powder into

lumps. The following method (*c*) gives a less expensive and more durable product.

c. Grate, on a fine grater, a piece of rectified solid camphor; sift the powder through a fine silk sieve or tamis. The particles which remain on the sieve are sifted through a somewhat coarser sieve; the portion which passes is used to fill *cigarettes* (Section II), the portion which remains on the sieve serves for the preparation of camphorated alcohol; it may, however, also be used for cigarettes. The fine powder sifted through the silk tamis is kept in a close box to guard against evaporation.

Camphor powder affords all the advantages of snuff, without any of its disagreeables; it causes less sneezing, and does not soil the pocket handkerchief. The snuffing of camphor suffices often alone to cure megrim and cold in the head. It may often also serve, in some sort, as a substitute for the *cigarette*, just as taking snuff is sometimes made to answer the purpose of the pipe or the cigar, the inhalation through the nose transforming. as it were, the nostrils charged with camphor (or snuff, as the case may be) into cigarettes stuffed with camphor (or tobacco).

Camphor powder is also applied to wounds and solutions of continuity; it instantly puts a stop to the formation of ichorous matter, to sloughing, and mortification.

Camphor powder applied to the genital organs acts as a powerful calmant; it triumphs instantaneously over attacks of nymphomania, priapism, and satyriasis. Its continued application will often cure unhealthy discharges from the organs.

We would recommend parents to sprinkle the beds of their children every evening with camphor powder, between sheet and mattress, more particularly towards the middle of the bed.

Section II.

8. *Cigarettes of Camphor.*

The cigarette is intended to send the camphor to the lungs, which can be affected only by the disengagement of its vapour, and through the vehicle of inhalation. This indication must never be lost sight of in the construction of a cigarette, otherwise its intended beneficial effects would be annulled.

The use of the camphor cigarette forms one of the bases of our treatment; we exempt from it only patients with very

weak lungs, whom we advise in that case to chew a piece of camphor, and swallow the saliva; or to keep habitually in the mouth a bit of angelica-root, or a drop of resin from the fir or pine.

The cheapest, and at the same time most convenient, cigarettes for the inhalation of camphor fumes, are made of straws and quills. A *straw cigarette* is made as follows:—Select a fine sound stalk of wheat straw; cut it squarely about an inch below, and two or three inches above a knot or articulation; perforate the knot vertically with a straight awl or a long needle, and push down upon it, through the longer end of the stalk, with a knitting needle, a little square of tissue paper, or some other sort of unsized paper that is permeable to the air. The paper covering the upper surface of the perforated knot constitutes a species of diaphragm, permeable to the air. The long end of the straw is now filled with small pieces of camphor, loosely packed, and kept in place with a little plug of tissue paper. By inhaling the air through the empty end of the straw, you will find whether the air impregnated with camphor fumes passes freely through the diaphragm, which will always be the case if you have not packed the camphor too closely.

A *quill cigarette* is made as follows:—Cut off the quill from the pen with a sharp penknife, and round the cut edge of the quill; detach and remove the dry pith and the pellicle which obstruct the orifice at the lower end of the quill. Cut off from the back of the pen a narrow strip about an inch long, and roll it up in a spiral; push this with a knitting-needle through the upper or larger orifice down to within about an inch from the lower end, and push down upon its surface a cover of tissue paper. The spiral, covered on the upper surface with tissue paper, will again constitute here a diaphragm permeable to the air, and dividing the tube of the quill into two portions or cavities, a longer and a shorter one. Fill the longer end of the tube with small bits of camphor loosely packed, and keep them in place with a little plug of tissue paper. Inhale the air now through the empty end of the tube.

The principle on which these cigarettes are constructed is this: the air inhaled, passing through the tube of the straw or quill filled with camphor, gets impregnated with the vapour of that substance, which is thus brought into immediate contact with the pulmonary surfaces. But that this result may be fully attained, it is absolutely indispensable

that no fluid should interpose, since the volatile fumes of the camphor would dissolve in this, and their passage to the lungs would thus be effectually intercepted. This is the reason why an empty space is left to intervene between the camphor and the lower orifice, since, were the diaphragm carried forward to the latter, the tissue paper covering it would imbibe saliva, and thus be rendered unfit for the purpose which it is intended to subserve. A portion of the camphor fumes will, of course, always be intercepted and absorbed by the saliva; but the greater portion will reach the lungs, provided the cigarette be properly constructed.

When you use the cigarette, close your lips round it in a manner to confine the inhalation of the air exclusively to the passage through the tube. You will experience at first a sensation of burning in the windpipe, which, however, will speedily subside, giving place to a rather agreeable feeling of warmth in the lungs. The volatility of camphor being in proportion to the elevation of temperature, it is advisable in winter to warm the cigarette a little, by holding it a few minutes in the hollow of the hand. To produce the full medicinal effect of this excellent curative agent, it is necessary sometimes to inhale with a certain degree of muscular exertion; however, even where this is dispensed with, the camphor will always be found to act most beneficially on the respiratory organs, though perhaps somewhat more slowly.

The saliva impregnated with camphor ought to be swallowed. It is almost needless to observe in express terms, that the camphor cigarette is smoked without the aid of fire, indeed the term "smoking" is a misnomer for an operation consisting in the simple inhalation of air through a tube.

The use of the cigarette suffices often alone to cure, or at all events to alleviate, all kinds of affections of the chest, asthma, bronchitis, hooping cough, loss of voice, oppression of the chest, cough in all its stages; it will also cure consumption in the first, and alleviate it in the third stage. The saliva impregnated with camphor proves of great benefit in gastric affections, stomach-ache, cramps of the stomach, &c.

Some persons moisten the camphor in the cigarette with alcohol or ether, with a view to increase its volatility. Except in certain cases, which will be found specified in Part III., this is a most injurious proceeding, and one which cannot be too strongly condemned, since the alcoholic or etheric vapours inhaled, from the avidity with which they absorb aqueous

molecules, tend to dry up and disorganise the pulmonary tissue which performs its functions only in the humid state.

Persons who absolutely object to the inhalation of camphor fumes may substitute for the camphor in the cigarette, fragments of Tolu balsam, or coarse black pepper, or cloves, &c.

A properly-constructed cigarette, straw or quill, will last eight days; the camphor is to be renewed every night. Care must be taken to hold the cigarette with the lips alone, since the strong pressure of the teeth would split the slender material of the tube, and thus render it perfectly useless for the purpose which it is intended to subserve.

Section III.

9. *Camphorated Alcohol and Camphorated Brandy.*

Brandy freed by distillation of the greater part, or of the whole of the water which it contains, and of the foreign bodies which it holds in solution, is called *alcohol.*

The brandy of commerce consists of a mixture of equal weights of spirits of 32° to 36° Baumé and water. *Absolute alcohol* is entirely free from water. The nearer the alcohol approaches this degree of absolute purity, the more camphor it will dissolve. Absolute alcohol combines with camphor in all proportions.

Camphorated brandy produces the same medicinal effects as camphorated alcohol. We prefer the latter, however, for external application, because it evaporates more quickly, does not wet or stain the linen, and deposits on the organic surfaces a larger quantity of camphor powder than the camphorated brandy.

Camphorated brandy for *internal* application (as potion) is prepared by dissolving in good French brandy, in a close-stoppered bottle, as many lenticular pieces of camphor (of about a grain each) as the bottle contains small glasses of brandy. This agent is employed principally against intestinal worms, and more particularly against the tape-worm; the dose is a small glassful every morning, taken either neat or more or less diluted with water, according to the constitution, habits, or inclination of the patient. Camphorated brandy leaves a bitter taste in the mouth, which may be removed by a gargle with salt water (chapter xix.). It has a tendency also at times to bring on a slight constipation, which, however, always yields readily to appropriate means. *Camphorated alcohol* will not answer for internal application, except, indeed, it be

diluted with ten times its volume of water; even confirmed brandy drinkers would not be able to take it undiluted, whereas the camphorated brandy may be taken neat without any inconvenience by persons accustomed to the use of spirituous liquors. Yet diluted with ten times its volume of water, camphorated alcohol may be taken with advantage by patients troubled with the tape-worm or other large intestinal worms, whenever these tormentors are felt to ascend to the throat.

Camphorated brandy for external application is made by saturating good French brandy with camphor; the camphor is added to the brandy in small lumps, and the bottle shaken from time to time; the solution is considered saturated when the brandy leaves fragments of camphor undissolved after fifteen minutes contact. Elevation of temperature promotes the solution. When the brandy refuses to dissolve any more camphor, the liquid is decanted off from the undissolved portion at the bottom of the vessel, and kept for use in a well-stoppered bottle.

Camphorated alcohol is prepared by dissolving camphor in alcohol of 44° Baumé, until the solution is reduced to 30° Baumé, which will require about 10 ounces of camphor per quart of alcohol. Alcohol of 44° Baumé holding in solution an equal volume of camphor marks 28° Baumé. Touching this reduction from 44° to 30° and 28°, we may here incidentally observe how easy it would be to disguise the strength of alcohol, in spite of the best alcoholometer; since the solution of a resin and of a fixed fatty body produces in this respect the same results as that of the camphor or any other essential oil; distillation would, however, reveal the fraud.

Camphorated alcohol and camphorated brandy are applied externally in lotions and compresses.

For *lotions* a certain quantity of camphorated alcohol or camphorated brandy is poured into the hollow of the hand, and gently applied to the surface corresponding to the seat of pain. For lean people and persons labouring under affections of the chest, the camphorated alcohol ought to be reduced to 18° Baumé by the addition of water.

For *compresses*, a sufficient quantity of camphorated alcohol or camphorated brandy is poured into a basin or dish, and a piece of linen folded double steeped in it, and then speedily applied to the affected surface. The compress is then covered with a stiffly-starched muslin handkerchief, of which the borders are wetted to make them adhere to the skin all round the compress. The starch in the handkerchief being inso-

luble in alcohol keeps that fluid effectually confined to the compress.

Care should always be taken when using camphorated alcohol or any other substance of an inflammable nature, to avoid the immediate vicinity of a light, or of any other body in a state of ignition.

It is hardly necessary to observe that rum or whisky saturated with camphor might, in case of need, be substituted for camphorated brandy. And, as far as lotions and compresses are concerned, eau de Cologne or distilled balm-water will also, to a certain extent, but within a more limited sphere, answer the same purpose as camphorated alcohol.

Theoretic explanation of the action of camphorated alcohol on the animal economy.—The principal agent in camphorated alcohol is the camphor; the alcohol serves simply as a vehicle and menstruum. Alcohol has a greater affinity for water than for camphor or any other oleaginous substance; it is from this cause that when we add water to the alcoholic solution of camphor, the mixture turns milky, and a greater or lesser amount of camphor, in proportion to the quantity of water added, is eliminated, and rises to the surface in the form of a white powder. Now, if alcohol comes in contact with organic tissues, it deprives them, in obedience to the law of affinity, of the water with which they are impregnated and, consequently, parches and shrivels them up; in fact, it may be said, in a manner, to sear or cauterise them: a single drop brought into contact with any part of the body denuded of the epidermis, causes a burning pain, in some cases actually insupportable. The consequences of its ingestion into the stomach are the more injurious, the less diluted it is with water. Its application on mucous membranes, abraded surfaces, wounds, &c., ought, therefore, to be restricted to the cases that will be found specified in Part III.

But on the epidermis—a tissue which is not impregnated with water, and partakes of the nature of the horny tissues—alcohol exercises no injurious action, and may, therefore, be safely applied on it. Still the epidermis, being by no means impermeable, allows a certain portion of the alcohol to filter through and to reach the subjacent tissues; but this portion is not considerable enough to affect these tissues injuriously; on the contrary; it exercises on them a most beneficial and medicinal action. In diseases of the skin camphorated alcohol is a most efficacious remedy. The application on the epidermis of the affected part relieves almost instantly stitch

in the side, palpitation of the heart, and pains in the bowels.

There are cases, moreover, and these are by no means rare, in which the therapeutic action of the alcohol is of at least equal importance with that of the camphor. In fact, alcohol has the property to coagulate the albumen, no matter whether of the blood or of purulent matter, &c.; and there are cases in which this property suffices in itself to hasten the cure, and to preserve the life of the patient.

Let us suppose, for instance, that a gangrenous or sloughing ulcer or sore has formed, which may be readily known from the putrid and cadaverous odour exhaled by the wound. In such a case the life of the patient is in danger from the general infection of the system that will result from the infiltration of the deleterious products of the morbid decomposition through the channel of the superficial veins. To obviate this danger, and to render the infection through the veins impossible, it is necessary to cut off all communication between the wound and the circulating fluid. Compression fails to accomplish this end, since, however strong it may be, it can never embrace the whole of the capillaries, and still less the deeper-seated blood-vessels. But alcohol, by virtue of its coagulative action, the sphere of which is by no means limited to the surface, but extends to a certain depth beneath, produces the desired result almost instantly; since, by coagulating the albumen of the blood, it forms in each blood-vessel a solid plug which effectually intercepts all communication between the circulating fluid and the diseased part. To attain this object, it suffices to surround the ulcer, sore, or wound with simple compresses, and to wet them from time to time copiously with camphorated spirits of wine: the camphor stops the progress of the putrid decomposition of the purulent matter, whilst the alcohol prevents the infection spreading.

The preceding remarks will also serve to explain the reason why camphorated alcohol so speedily relieves the pain from bruises and contusions, and averts the decomposition of the affected tissues. The extravasated blood, deprived by the alcohol of its aqueous part, dries up, and naturally loses thereby the faculty of being transformed to pus, since no fermentative process can possibly take place where there is no water; the pain, which is simply an effect or symptom of the disorganization of the contused or bruised tissues natur-

ally ceases as soon as the progress of this disorganization is arrested by the action of the alcohol.

It will now be intelligible also why the simple smelling or inhaling of camphorated spirits of wine will stop bleeding from the nose and blood-spitting, and why a simple lotion with very diluted camphorated alcohol will suffice to stop the most violent hemorrhage.

As a general rule, the use of camphorated alcohol is indicated in all cases of prostration of the forces, and where the circulation slackens, in consequence of an exuberance of the fluid menstrua in the blood. *Sedative water* (chapter xx.), on the other hand, is indicated in cases of inflammation of the tissues, where the blood is thickened, coagulated, and deprived of the normal proportion of its fluid menstrua.

In the case of emaciated persons in whom the cellular tissue protecting the subjacent organs has nearly disappeared, great caution ought to be observed in the application of camphorated alcohol compresses, lest the alcohol should act with baneful energy on some important organ. When camphorated alcohol compresses have been imprudently applied, the effects are successfully combated by lotions with weak sedative water (chapter xx.), and subsequent frictions with camphorated pomatum.

Patients with a delicate chest should always avoid remaining too long in an atmosphere charged with the vapour of camphorated spirits of wine, since an excess of alcohol inhaled with the breath might prove as injurious as an excess of alcohol taken in drink.

Section IV.

10. *Camphorated Oil.*

Take of Olive oil, 8 oz.
Grated camphor, 1 oz.

Mix in a bottle, and shake the mixture every quarter of an hour. Camphor dissolves in oil at the common temperature, but placing the bottle near a fire will hasten the solution.

You may substitute for the olive oil any other species of eating oil: sweet-almond oil, rape-seed oil, beech oil, poppy oil, in short any non-irritative fat oil free from smell and acidity.

Camphorated oil retains its fluidity at the temperature at which camphorated pomatum congeals; it is, therefore, better

adapted than the latter for clysters, injections into the genital parts, the ears and nose; it serves also to soak the dressings of wounds, &c., in cases where the nature of the apparatus or the end in view oppose the frequent renewal of the dressing. These soakings with camphorated oil, frequently repeated, are tantamount to a fresh dressing.

11. *Terebinthinated Oil* (*Oil and Turpentine*).

Take of Oil of inferior quality, 1 quart.
Essence of turpentine, 1 gill.

Mix in a bottle, and shake the mixture; let it stand for some time, no matter whether in the cold or in a warm spot.

This oil subserves the same purposes in the diseases of cattle as the camphorated oil in the diseases of man.

An excellent remedy of the same sort may also be prepared by infusing in any kind of oil the flowers of the perforated St. John's wort (*Hypericum perforatum*, Lin.), gathered at flowering time.

SECTION V.

12. *Camphorated Bougies* (*Camphor Bougies*), *against Hemorrhoids and Uterine Affections.*

Take of Mutton fat, 16 oz.
Grated camphor, 5 oz.
Virgin wax *, 2½ drs.

(For the grated camphor you may substitute the same quantity of camphor dissolved in alcohol.)

Melt the fat and the wax together in the water-bath, and add the camphor powder to the melted mass; when the mixture has acquired the limpidity of oil, take it off the fire, and pour it into cylindric moulds of about one-fourth to two-fifths of an inch in diameter. These moulds are made of paper slips about 2½ inches long; the slips are rolled round a pencil or penholder, and twisted at one end; the edges are glued with gum or paste. They are then stuck in sand by the twisted end, in order to keep them in position, whilst the melted mass is poured into them. The bougies are left to cool, and laid by in the mould, the paper being removed only

* The wax may be omitted in winter and in cold weather, and also in cases where the introduction of the bougie into the anus presents some difficulty; for in such cases it is desirable that the bougie should be somewhat softer and more readily melted.

when they are required for use. They are introduced into the anus, and maintained there by means of a bandage or pad, until they are completely melted, or expelled with the fæces.

Camphorated bougies intended for application in uterine affections are made about an inch longer; the lower end is secured by a waxed thread, that the bougie may be withdrawn at will, whenever it is necessary for the purpose of making injections.

Section VI.

13. *Camphorated Pomatum* (*Camphor Pomatum*).

Take of Fresh hogslard, 3½ oz.
Grated camphor, 1 oz.

Put the hogslard in a large cup, and place this in a saucepan lined with porcelain, and containing water to the depth of about two inches. Heat over the fire until the hogslard is thoroughly melted and presents the appearance of oil; add now, gradually, the camphor powder, and stir with a small stick or glass rod, until the camphor is thoroughly incorporated with the lard, and the mass looks perfectly limpid, which will require about two or three minutes. Remove the saucepan from the fire, let the mixture stand a few minutes, and then pour it gently into another cup, taking care to leave the sediment behind. Put the cup with the pomatum in the cellar, or in some other cool place.

The pomatum prepared in this manner is white as snow, and perfectly smooth.

Should you have no grated camphor at hand, you may substitute for this ingredient two ounces of camphorated spirits of wine. In that case you will, of course, bear in mind the facility with which alcohol catches fire, and add this ingredient to the melted fat with proper caution. The pomatum must, moreover, be left in the water-bath for at least ten minutes, to let the alcohol evaporate; should a portion of the alcohol still remain, this may be got rid of by decantation and draining.

Camphor pomatum is used in frictions, and for the dressing of wounds, &c.

a. In Frictions.—The back, chest, and abdomen of the patient are washed, in cases of fever with sedative water, in cases of atony with camphorated spirits of wine; a small portion of pomatum is then spread over the same parts, and

gently rubbed in with the palm of the hand; when this portion has been taken up by the organic tissues, a fresh quantity is applied, and rubbed in as before; the operation is continued for twenty minutes, the friction being, however, more exclusively confined to the back and abdomen, whilst chest and bosom are only lightly greased with the pomatum. In certain cases, shampooing may be added to the friction.

These frictions are repeated three or four times a day; they constitute one of the bases of our treatment. No one who has not experienced it in his own person, would believe the relief and comfort which they give the patient.

b. Dressing of wounds, &c.—The wound, &c., is properly washed and cleaned, and then covered with a sufficiently thick coating of grated camphor. Over this are placed pledgets of lint copiously greased on the lower side with camphor pomatum, and these are covered again with pieces of clean linen folded double. A sufficiently large sheet of tracing paper is laid over the linen, and the whole dressing is kept in its place by means of a long bandage. The tracing paper, which has for its object to prevent the pomatum meltinga way too soon, and running into the body or bed linen of the patient, may be replaced, in case of need, by a piece of mackintosh or oilskin, or, better still, by a sufficiently large piece of sticking-plaster or strapping to cover the whole dressing, and to adhere by its edges to the healthy tissues around the wound; this will most effectually exclude the air until the next dressing.

Camphor pomatum is introduced into the nose as a remedial agent in cases of internal ulcerations of that organ, and against obstinate colds in the head; into the anus, in hæmorrhoids, excoriations, &c.; but more particularly into the female genital organs, to combat the several disorders these organs are liable to (fluor albus, discharges of another kind, uterine affections, &c.).

Theoretic explanation of the action which camphor pomatum exercises on the animal economy.—Camphor pomatum is doubly antiseptic or antriputrid, viz., 1, through the action of the camphor, which opposes all fermentative processes, no matter whether normal or abnormal; 2, through the action of its fatty constituent, which covers the surface to which it is applied with a coat impermeable to the air. And where there is no air, there can be no fermentation or decomposition. The fat serves, moreover, to soften the hand of the

attendant who rubs in the pomatum, and prevents thus the excoriations that might otherwise result from the friction.

14. *Camphor Cerate, or Camphorated Sticking-Plaster.*

Take of Hogslard, 10 oz.
Yellow wax, 3 oz.

Incorporate in the water-bath, and add to the limpid melted mass,

Grated camphor, 3 oz.

Remove from the fire, and let the cerate cool; when sufficiently congealed, spread it with the blade of a knife, or the handle of a spoon, upon a piece of linen of the size required; apply this to the wound, &c., and cover the whole with oilskin. This plaster will, in many cases, be sufficient dressing in itself, and enable us to dispense with the use of lint, bandages, &c. We use it also with great advantage for masks in cases of facial tetters.

The addition of the wax is intended to give greater consistence to the pomatum, that it may not too quickly run through the linen. The quantity of the wax may be increased or diminished according to the degree of consistence you wish to give the cerate.

15. *Camphorated Vinegar—Camphor Vinegar.*

Take of Grated camphor, 1 oz.
Best white wine vinegar, 1 quart.

Dissolve the camphor in the vinegar in a well-stoppered bottle, either in the cold or with the aid of a gentle heat.

We employ this vinegar,

a. To purify the air in bed-rooms, sitting-rooms, &c., by sprinkling a few drops on the ground, or on a heated iron plate or shovel.

b. As a restorative smelling agent in fainting fits.

c. In gargarisms, against scorbutic affections (five or six drops in a glass of water).

d. Largely diluted with water, in lotions, against the threatening danger of purulent infection, decomposition of the blood, carbuncles, plague and other contagious diseases, gangrene of the lungs, and against the fearful effects of punctures received in the dissection of dead bodies.

It may be laid down here as a general rule, that lotions

with largely-diluted camphor vinegar are indicated in cases where the blood is liquefied by the absorption of a substance with ammoniacal bases; whereas lotions with sedative water (chapter xx.) are indicated in cases where the blood is heated by the absorption of an acid: in the latter case we have fever, in the former a progressive sinking of the pulse.

The pure camphor vinegar burns the skin like a caustic, hence the necessity of diluting it largely with water before it can be used as a lotion.

CHAPTER VI.

16. *Castor Oil.*

For Adults.

Take of Castor oil, 2 oz.
Decoction of herbs (herbal or vegetable broth), hot, (2, chapter i.) 3 to 4 oz.

For Children.

Castor oil, 1 oz.
Decoction of herbs (herbal broth), hot, 2 oz.

Stir the mixture well with a spoon before taking or administering it. It is taken or given in three doses, at intervals of five minutes. The patient should walk about the room, or, if he has not the use of his legs, move about on his seat; he should drink a bowl of herbal broth every time he goes to stool. The action of this purgative is prompt, generally a few minutes after the third dose. The burning sensation felt in the anus from the effects of the purgation, is readily allayed by the application of some camphor pomatum or a camphor bougie.

CHAPTER VII.

CATAPLASMS AND POULTICES.

The skin has the faculty of absorption, as well as the mucous membranes, only it sifts more finely and more slowly the particles which it lets pass; and what is applied to the cutaneous surface mostly requires for its absorption the presence and aid of an aqueous vehicle. But water applied to our skin would speedily soak our linen, and be absorbed

much more readily and quickly by our clothes than by our epidermis. To obviate this inconvenience, certain mixtures have been devised, of a soft and plastic nature, and which retain the aqueous portion a long time, and keep it in contact with the skin. Such mixtures are called *poultices* or *cataplasms;* they serve to introduce into the circulation, through the medium of the skin, certain remedial agents.

17. *Emollient Cataplasm.*

Add three and a half or four ounces of linseed meal to a pint of boiling water. Take the glutinous mass produced off the fire, and add to it two or three scruples of camphor ted spirits of wine, and a wineglass-full of sedative water (chapter xx.). Mix the whole well together with a spoon, and spread the hot paste evenly on thin soft linen, free from holes or rents. The piece should be four or five times the size of the spot to which the cataplasm is to be applied; the spreading of the paste is confined to the middle part, and the four ends are folded over it, so as to cover it completely. The cataplasm is then applied to the affected part on its single side. This is the most convenient and cleanest way of applying poultices and cataplasms.

18. *Vermifuge Cataplasm.*

Add to the linseed meal of the preceding cataplasm, two cloves of garlic bruised, a few leeks, bay leaves, a bunch of thyme and chervil, and one and a half scruple of asafœtida, worked up previously with a sufficient quantity of camphor pomatum. Prepare and spread the cataplasm in the same way as the preceding. Cover the whole abdomen with this cataplasm. Renew the application every two hours.

In many cases, the emollient cataplasm (17), plentifully moistened with sedative water, will answer the same purpose as the vermifuge cataplasm.

19. *Saline Cataplasm.*

Add from three and a half to four ounces of linseed meal, and two ounces of bay salt, to a pint of boiling water. Take the glutinous mass off the fire, and add to it from two and a half to three drams of camphorated spirits of wine. Spread the cataplasm on linen in the way described sub 17, and

moisten plentifully with sedative water the side which is to be applied to the skin. This cataplasm must not be suffered to lie on longer than ten minutes.

20. *Dry Cataplasms*, or *Sachels* (*Bags*).

In affections where the tissues are infiltrated with water (œdematous), we use with favourable results sachels filled with substances that absorb moisture with avidity, but exercise no disorganising action on the tissues.

The best sachels are made with finely-pounded salt; they produce excellent results in swellings of the glands, swollen face, swollen breasts.

In cases of œdematous infiltration of the limbs, we recommend lotions with camphorated spirits of wine, followed by the application of bags filled with very hot oats, or with pounded plaster heated in a stove or oven, or with any other hygroscopic powder.

CHAPTER VIII.

CLYSTERS.

Clysters have for their object to free the intestines from hardened excrements accumulated in the colon, from intestinal worms, or from poisonous substances which corrode the sides of the intestinal canal.

21. *Emollient Camphor Clyster.*

Take of Linseed, 1 oz.
Rose leaves, 1½ dram.
Bay salt, 3 drams.

Boil the ingredients for a quarter of an hour, in a quart of water; just before taking the decoction off the fire, add to it,
Camphorated oil, 1½ dram.

Strain. Use an enema syringe.

22. *Purging Clyster.*

Add to the preceding, during the ebullition,
Aloes, 3 grains.

23. *Superpurging Clyster.*

Add to the emollient camphor clyster (17),
Castor oil, ½ oz.

24. *Vermifuge Clyster, Helminthic Clyster, Worm Clyster.*

Take of Aloes, Tobacco, Asafœtida, of each 3 grains.
Camphorated oil, 3 drams.

Boil the ingredients for a quarter of an hour, in a quart of water.

Remark. The aloes in this decoction act on the large intestine as a purgative; the camphorated oil serves to lubricate the internal coats of the intestines, and to prevent or heal the excoriations. The tobacco and the asafœtida passing into the blood, and impregnating all the organic tissues with their insect destroying odour, pursue the worms to the deepest recesses of our organs. The quantity of the tobacco may be increased to six grains, if the patient bears the first clyster well.

It happens sometimes, more particularly with females, that this tobacco clyster brings on a feeling of intoxication and drowsiness. However, there is no danger in this; the patient need simply lie down on the bed, and smell vinegar, and in about ten minutes she (or he, as the case may be) will feel quite comfortable, and relieved alike of the symptoms of the vermicular affection and the effects of the remedy.

The smell of the asafœtida betrays itself speedily in the breath.

25. *Worm Clyster for Cattle.*

Take of Decoction of bran, a pailful (10 quarts).
Terebinthinated oil (11, chapter v.), 3½ oz.
Aloes, ½ oz.
Mix.

The decoction of bran is prepared by boiling, for ten minutes, one pint of bran in a pailful of water.

CHAPTER IX.

26. *Powder of the Root of Male Fern.*

The powder of the root of male fern is given against intestinal worms, especially of the long and round kind (*teres*). It is administered in the pulverulent form, or as a decoction, in potions and in clysters.

The powder may be taken in doses of from 15 to 30 grains at a time, between two slices of preserves, which should be swallowed as much as possible without chewing, and may be washed down with a mouthful of decoction of hops (chapter xii.). This dose is repeated from five to five, or from ten to ten minutes, until an ounce of the powder is administered; after the last portion, the patient should take a dose of castor oil (16, chapter vi.).* Patients who find this mode of taking the fern-powder tedious and inconvenient, may take a single dose of 30 grains every day for a fortnight or three weeks. The pulverulent form adds to the vermifuge action of the male fern, since it affects the worms as disagreeably as saw-dust would.

The decoction of fern (potion) is prepared by boiling for 20 minutes, one ounce of the powder in a pint of water. This potion should be taken at one draught. The clyster is prepared by boiling for 20 minutes, two and a half drams of the powder in about a pint of water.

CHAPTER X.

GALVANIC PLATES, PROBES, AND PESSARIES.

These apparatus are applied for the purpose of drawing out from the organic tissues, through the skin or the mucous membranes, the mercury, arsenic, and other metallic poisons with which these tissues may happen to be infected. Their application has been attended in a great many cases with the happiest results; we have even met with some rare cases in which the side of the copper plate in immediate contact with the skin has actually got coated over with a visible layer of mercury.

27. *Galvanic Plates.*

You require a set of red copper plates and a set of zinc plates; both must be rolled out as thin as a sheet of paper, so that they may readily bend and adapt themselves to the shape of any part of the body where their application may be deemed desirable. The zinc plate ought to project beyond the copper plate. Care must be taken to turn up and round the edges of both plates, in order to guard against scratches and other injuries to the skin. The copper plate is applied

on the affected part, and the zinc plate is laid over it, being previously moistened with salt water on the side which is intended to touch the copper. The apparatus soon commences its functions, and the side of the copper in contact with the zinc is speedily covered with a coating of the latter metal. The application is continued for an hour, and repeated three times a day. After each application the affected part is washed with sedative water, and then covered with camphor cerate (14, chapter v.). The copper-plate is cleaned with vinegar, and the side which was applied on the skin held to the fire for a few moments. The zinc plate gets speedily corroded and perforated; yet, notwithstanding, it will answer the purpose as long as one can handle it.

In the sedative bath (3, chapter ii.) the patient should apply the galvanic plates on all the seats of ulcerations, cutaneous eruptions, or rheumatic or gouty pains.

28. *Galvanic Probes.*

Make of a sheet of copper, rolled out to the thinness of paper, a probe of the smallest size, closed at the end, but with an oval aperture about two-fifths of an inch long, at two-fifths of an inch distance from the end. Insert into this copper probe a small zinc rod, moistened with salt water; the end of the rod must reach down to the bottom of the probe. The probe, being previously well oiled, is introduced into the urethra, and left there for about five to ten minutes, taking care to ascertain from time to time whether there is no danger of adhesion of the mucous membrane to the metallic surface. Should an adhesion of the kind take place notwithstanding, the zinc rod must be withdrawn, and olive oil injected into the probe; the oil oozing out through the oval aperture will speedily detach the probe from the mucous membrane. The end of the probe should never project beyond the prostate gland in male patients, lest its appearance in the bladder should give rise to the precipitation of incrusting salts. With these precautions the galvanic probes may be used without the slightest fear of accidents.

The galvanic probes are employed against ulcerations of the urinary passage, discharges from the same, dysuria, &c. They are used also in diseases of the anus of mercurial origin.

29. *Galvanic Pessaries.*

Make of sheet copper a species of speculum, closed at the

end in the form of a cap, and having at some distance from the end an oval aperture about two-fifths of an inch long. Make a similar speculum, but without aperture, of sheet zinc. The zinc speculum must measure a little less in diameter than the copper one, to admit of its being inserted into the latter without too much friction.

When required for use, the zinc speculum is moistened outside with salt water, and then inserted into the copper speculum. The apparatus is then introduced into the vagina, and left there for from five to ten minutes, with the same precautions as are observed in the application of the galvanic probe.

The galvanic pessary is recommended in all suspected affections of the womb and vagina, obstinate fluor albus, discharges of a bad nature, intestinal pains. It draws out and removes gradually the metallic poison which a mercurial or arsenical medication may have deposited in the affected organs.

CHAPTER XI.

30. *Gargles.*

Gargles are ablutions of the cavity of the mouth; they cleanse the mouth of morbid mucosities, and of the virus that may have fixed itself in any part of it. In our method of treatment we use two kinds of gargle, viz., with salt water and with camphorated vinegar. The salt-water gargle is made by dissolving a handful of bay salt in a quart of water, stirring the solution, letting it stand awhile to allow the impurities to subside, and finally decanting the supernatant clear liquid off. This gargle has a truly marvellous medicinal power in swellings of the glands, swelling of the gums, œdema of the glottis, affections of the air passages; it clears the glands, re-establishes the suppressed secretion of saliva, and facilitates the play of the respiratory organs.

The camphorated vinegar gargle is made by diluting camphorated vinegar (15, chapter v.) with ten parts of water. Camphorated spirits of wine, diluted with ten parts of water, may be substituted for it.

These camphor gargles are prescribed in cases of scorbutic putrescence, of fetid virus, and ulcerations of a bad nature.

CHAPTER XII.

INFUSIONS, DECOCTIONS, MACERATES (COLD INFUSIONS).

We call *decoction* the product of the *boiling* of a substance in water; *infusion*, the product of the *immersion* of a substance in *boiling water; maceration*, or *cold infusion*, the product of the immersion (continued a longer or shorter period) of a substance in *cold water; tincture*, the solution of a substance in alcohol or ether, with or without the aid of heat.

Vegetable broth (2, chapter i.) is a *decoction; tea*, a hot *infusion; wild succory water* (cold aqueous extract of wild succory) a *cold infusion* or *macerate;* camphorated spirits of wine, an *alcoholic tincture.*

31. *Decoction of Semen-contra (worm-seed)*,

The semen-contra consists of the tops of a species of Asiatic Artemisia (Indian wormwood). The decoction is prepared by boiling for about twenty minutes half an ounce of the semen-contra in half a pint of water; it is taken off the fire when the minute seeds have subsided to the bottom: the supernatant liquid is decanted and taken fasting, without sugar; a bit of lemon-peel should be chewed after.

Persons who have a repugnance to the decoction may substitute for it the seed reduced to a fine powder, which they may take once a day at a dose of from 15 to 30 grains (one or two pinches) between slices of preserves.

Semen-contra is one of our most efficacious vermifuges against teres (long round worms) and ascarides. The tops of the common wormwood (*Artemis. Absinth.*) may be substituted for it without disadvantage. Camomile-flowers also possess the same properties as these two species of wormwood, but in a much less degree.

32. *Decoction of Iceland Moss.*

The Iceland moss or lichen was formerly used only on account of its mucilage; in our medication we employ it on acccount of its bitterness.

The decoction is prepared by boiling for ten minutes about 30 grains of lichen in a quart of water. It is sweetened with sugar and taken as a drink.

33. *Decoction of Hops.*

Boil for about ten minutes, in a quart of water, 15 grains of the yellow pollen (dust) that falls from the female flowers of the hop plant; sweeten with sugar, and take as a drink; the sugar may be omitted. You may substitute also for the pollen an entire top of the female flowers. This decoction is recommended to adults and children of a lymphatic temperament, and subject to worms.

34. *Decoction and Maceration (cold infusion) of Wild Succory.*

Decoction.—Boil a large pinch of succory-leaves in a quart of water.

Cold Infusion.—Put a large pinch of succory-leaves, coarsely chopped, into a quart of spring water, and let it stand a few hours before you commence drinking it.

35. *Decoction of Corsican or Sea Moss (Fucus crispus).*

Boil a large pinch of sea-moss in a pint of water for ten minutes, and strain the decoction through a strong cloth.

The decoction of sea-moss is an excellent vermifuge, combining the action of the saline principle with that of iodine. From the presence of the latter among its constituents, seaweed is used advantageously as a cheap substitute for iodide of potassium.

36. *Infusion of Borage.*

Infuse in a quart of boiling water seven or eight leaves or two tops of borage. If you can get them fresh from the field, so much the better, if not, procure the dry plant from a respectable druggist's or herbalist's, or at Apothecaries' Hall.

Sweeten the infusion with sugar, and flavour it with a few drops of orange-flower water. Take it after dinner.

From its aromatic principle and nitrate of potass, borage promotes digestion and the secretion of urine, and aids thus the action of camphor. Flavoured with orange-flower water, infusion of borage forms a most excellent substitute for tea.

CHAPTER XIII.

37. *Injections.*

Injections are made into the genital organs, the ears, the nose, fistulas, and deep wounds. We use tin syringes and glass syringes; however, for injections into the genital organs the latter ought to be discarded altogether, on account of their fragility, and the accidents which might arise from their breaking in the organs.

In our method of medication we use only three liquids for injections, viz.:—

a. Camphorated oil (10, chapter v.), which shields the cavities or passages affected from contact with the air, and by cleansing them from the purulent matter that may happen to have formed in them, protects them from the danger of putrid decomposition.

b. Tar water (chapter xxii.), which answers the same purpose as the preceding, and serves, moreover, to cleanse the affected cavities or passages from the oil adhering to them from the last injection, whilst, at the same time, it protects, by its aromatic principle, the surfaces of the affected parts against their tendency to decomposition.

c. Tar water, holding in solution *sulphate of zinc*, in the proportion of 18 grains to the half-pint. This last injection is used against the effects of the mercurial poison.

CHAPTER XIV.

IODIDE OF POTASSIUM.

We have already said that sea-weed (35, chapter xii.) may serve as an economic substitute for this substance, which is rather expensive, and, moreover, does not agree with every constitution. On this latter account some caution must be observed in its administration, and the patient should always commence with small doses to see how his constitution will bear it.

38. *Solution of Iodide of Potassium.*

Dissolve 4 grains of iodide of potassium in half a pint of water; take the solution in three portions, one in the morn-

ing, one at noon, and one in the evening. If you find this dose agree with your stomach, take 8 grains the next day, and go on increasing the dose until it reaches from 30 to 45 grains (dissolved in a pint of water). Do not go beyond 45 grains, though your stomach may support the iodide well. Always chew a small bit of camphor (about the size of a pea) before each dose of the iodide. You must take care not to eat or drink anything acid immediately after the ingestion of the solution of iodide of potassium.

The iodide of potassium must be kept in a perfectly dry and well-stoppered bottle, to guard it against decomposition from moisture, which it would be sure to attract were it left exposed to the contact of the air.

To paper sized with starch, it imparts a violet colour.

39. *Indurated Decoction of Madder.*

Take of Powder of madder-root (41, chapter xv.), 15 grains.
Water, 1 pint.

Boil. When you take the decoction off the fire, add to it the quantity of iodide of potassium that your stomach will support. Take the decoction in three portions, one in the morning, one at noon, and one in the evening. Chew a small bit of camphor (about the size of a pea) before each dose.

40. *Indurated Decoction of Sarsaparilla.*

Take of Sarsaparilla, a handful.
Water, 1 quart.

Boil for twenty minutes, and when you take the decoction off the fire add the quantity of iodide of potassium that your constitution will support.

CHAPTER XV.

MADDER.

41. *Powder of Madder-root—Decoction of Madder.*

We had almost despaired of ever being able to reach the cause of the diseases of the bones, protected as that cause is by osseous walls against the action of external applications. The problem was, to find an internal remedy that might reach the bones directly, and with all its properties intact, through the channel of the circulation. However, at last we

were led to fix upon madder as the substance through which the desired end might be attained. To this conclusion we were led principally by the following two considerations: 1, we remembered that the colouring matter of this plant goes straight to the bones and tinges them red, as may be seen in the bones of cattle fed upon madder leaves; 2, we have never observed a single parasitical insect living on the root of the madder; indeed, you will never find the slightest trace of erosion on the roots of that plant.* The natural inference to be drawn from this is, that a substance which the larvæ so carefully avoid, must possess some property hurtful or destructive to them. Now, as we assumed that the cause of many of the diseases of the bones might be attributed to the presence of parasitical insects in the osseous tissues, we thought that, by means of a simple decoction of madder-root, these parasites might perchance be reached and destroyed on the spot of their mischievous activity.

The first trial which we made with the decoction of madder-root was on a locksmith of Gentilly, who had an immense osteo-sarcoma in the knee. The effect was truly marvellous: in eight days the enormous tumour was converted into a vast sack of pus, which was opened and voided, and then dressed according to our method. In about a month's time the patient had recovered the use of the affected limb, and could walk.

From that time the decoction of madder-root has been given, with the happiest results, in numerous cases of rickets, scrofula, and caries of the bones; and we beg to invite the medical profession to give a trial to this agent in all cases of cancerous degeneration.

To cattle the madder may be administered by mixing the leaves with the hay in the manger, or an ounce of the powdered root may be given every day in a pailful of decoction of bran.

Powder of Madder-root.

Cut the roots into pieces about half an inch long; dry them in a kiln or drying-stove, but take care not to char them. When they have become brittle grind them in a coffee-mill.

Decoction of Madder-root.

Take of Powder of madder-root, 15 grains.
Water, 1 pint.
Boil.

This decoction is taken in three portions, one in the morning, one at noon, and one in the evening. A bit of camphor about the size of a pea should be chewed before each dose.

The root of madder having the property of combining with the earthy base of the bones, it is physiologically evident that the use of madder-powder, continued too long, might render the bones more brittle than they naturally are. As the object which we wish to accomplish by means of this agent is simply to reach and destroy the parasites that are preying on the bones, and as this object is, in many cases, attained in two, three, or four days, we had at first thought it advisable to continue the administration of the decoction of madder only for three or four days, and then to stop for a week; recommencing and continuing in the same manner, and with the same periodical intermittence, until the cure should be accomplished. But we have since become acquainted with several circumstances tending to modify our opinion on this point. We have been assured by manufacturers of Mulhouse that their workmen actually live in the midst of the vapour rising from the madder vats, so much so, indeed, that their clothes are tinged quite red by the fumes; they are, moreover, in the habit of chewing and eating bits of the root. In the south of France cattle are fed for several months of the year on madder, and it has never yet been observed that this fodder causes the least derangement in the constitution of the animal. We would, therefore, now advise patients to continue taking the decoction of madder-root uninterruptedly until the cure is accomplished; but at all events never to leave off before a week or a fortnight running.

The decoction of madder-root has the taste of liquorice and the exciting properties of coffee. When the continental blockade was at its height, torrified madder-root was extensively used in France as a substitute for coffee. Persons, therefore, with whom coffee disagrees, may not be able to bear a dose of 15 grains per diem; in such cases the dose may be reduced to 10 grains, or 5 grains, or 1 grain even, but the administration of the remedy must be continued for a longer period of time.

The purple colouring matter of the madder passes speedily into the urine, which it reddens, but without impairing its limpidity; the yellow colouring matter passes into the excrements, and imparts to them the same yellow tinge as aloes; but this double colouration is not lasting, nor need it excite the slightest apprehension.

CHAPTER XVI.

42. *Mustard.*

Mustard owes its medicinal action in certain cutaneous eruptions that resist the application of camphorated spirits of wine to the presence of phosphate of ammonia among its constituent elements. Vinegar, as a solvent of this salt, is the most appropriate fluid for making the mustard into a poultice paste.

As the ground mustard of commerce is adulterated in ninety-nine cases out of every hundred, you had better buy the seed of the white mustard and pound it at home. Mix the powder up into a paste, with vinegar, in the evening and apply it the next morning.

The mustard-poultice is left ten minutes on the affected part; the part is then washed with water, wiped dry, and covered for ten minutes with a compress imbibed with camphorated spirits of wine (9, chapter v.), and finally with a piece of camphorated adhesive plaster (chapter xxiii.).

CHAPTER XVII.

43. *Pills or Lozenges to cure Foulness of Breath.*

A foul breath may be got rid of in the morning by washing the mouth with salt water (chapter xix.), and cleaning the teeth afterwards with water mixed either with wood ashes (a pinch of ashes to a glass of water), or with a few drops of sedative water (chapter xx.). This will also tend to whiten fuliginous teeth.

However, as the foul breath may return in the course of the day, we recommend for its cure the following pills or lozenges:—

Take of White sea-salt, 1½ oz.
Acid tartrate of potass, } of each
Essential oil of bergamot, or mint, } 2 drams.
White sugar, } of each 8 oz.
Gum tragacanth, in powder, }

Dry the salts, sugar, and gum by the fire, and reduce them to an impalpable powder in a very hot mortar; make the powder into a paste with a little water and the essential oil;

roll the paste out to about one-eighth of an inch, and divide it into lozenges of about one-fifth inch in diameter. Dry them in a dish or basin in the oven; when perfectly dry, cover them with a coat of gum tragacanth, and dry them afterwards again quickly by the fire. Without this latter precaution the lozenges would attract moisture from the air, and speedily turn to paste again. Or, you may form the paste into pills of the ordinary size, and cover them with a mixture of flour and sugar, or with silver-leaf, for which latter purpose you need simply roll them about in silver leaf, after having previously moistened them with essence of bergamot, or of mint. Keep the pills or lozenges in a well-closed box.

These pills or lozenges are simply chewed, and not taken internally, nor ought the saliva to be swallowed that is secreted whilst chewing them. When you have done chewing tho pill or lozenge, rinse your mouth with water.

Besides curing foulness of the breath, these pills free the mouth also from the smell of tobacco; and, moreover, they are found useful in swellings of the tonsils and other glands of the buccal cavity, œdema of the glottis, affections of the air passages, ulcerations, thrush, &c.

CHAPTER XVIII.

POMEGRANATE.

44. *Pomegranate-root.*

The root of the pomegranate tree has, from the earliest ages, enjoyed a well-merited reputation as the most powerful remedy against the tape-worm; nor do we at present possess a more energetic and, at the same time, more innocuous agent against this destructive parasite of the human body. Kousso (*Brayera anthelmintica*), a species of Arabian agrimony, which has of late been greatly vaunted as an *infallible* means to expel the tape-worm, operates simply the same as the root of the pomegranate, but is a much more expensive article, and, moreover, hardly ever to be procured pure and genuine.

It must be borne in mind, however, that the medicinal virtues of plants are in proportion to the heat of the climate in which they grow, and, accordingly, that the root of the pome-

granate which grows in the north of France, is not a tithe so effective as that of the wild pomegranate of the south of France, which latter, again, does not possess the same efficacy as that of the pomegranate of Portugal or Algiers. One strong dose of the decoction of the latter suffices in southern countries to operate the expulsion of the tape-worm; whereas the decoction of the root of the pomegranate of the north simply tends to irritate the worm. Physicians and patients should therefore be careful invariably to procure the root of the pomegranate of Portugal or of Algiers, and to trust, in this matter, to Apothecaries' Hall alone; or, at all events, to druggists and chemists of acknowledged respectability only. We may also remark that the small rootlets of the pomegranate seem to possess greater efficacy than the scrapings of the larger roots. The bark of the pomegranate-root of Algiers and of Portugal has the taste of the peel of the fruit; it turns the edge of the peeling-knife black; when ground to powder, in a coffee-mill, it turns yellow like fine sawdust. The mere chewing of a bit of it suffices to drive the tape-worm down from the throat, to which it frequently will ascend.

The dose is, for adults, two ounces; for children, one ounce of the bark, or half an ounce of the bark ground to powder in a coffee-mill, and boiled in a quart of water to a pint. It is taken early in the morning, either in one dose or in three portions, administered at intervals of fifteen minutes; a little lemon-peel chewed after will generally overcome the nausea caused by the bitterness of the bark. Half an hour after the administration of the bark, the patient takes a dose of castor oil in the manner described 16, chapter vi. For several days preceding the administration of the bark of the pomegranate-root, the patient should live on strongly-spiced, salted, and alliaceous dishes only, and take aloes every night, and more particularly the night before he has to take the bark; he should also drink every morning a small glass of camphorated brandy (9, chapter v.) diluted with water. The evening preceding the administration of the bark, the patient should eat every article of his food strongly salted, and abstain as much as possible from drinking in the night.

But, in our climate, one single dose of the pomegranate-root is hardly ever sufficient to expel the tape-worm; in most cases repeated doses of this agent are required to get rid of that formidable parasite. The best way in such cases is to give the patient every morning 15 grains of the powdered

bark in a bolus of preserves, and to make him frequently bite a small rootlet of the pomegranate and swallow the saliva.

There are quacks that will undertake to kill and expel a tape-worm in three or four days. This feat may, indeed, be accomplished, but by means of arsenical or mercurial preparations, which may be said to prove almost as destructive to the patient as to the worm.

Some physicians accuse the root of the pomegranate of bringing on convulsions; this is a misapprehension. The *convulsions* which the *root* produces are *confined* to the *worm*; but this latter in its agony strikes furiously against the sides of the stomach or intestines, and may thus occasionally bring on convulsions of an appalling character, and which simulate epileptic fits. In such cases, lotions with sedative water are applied to the abdomen, and the patient is made to take occasional sips of camphorated brandy (9, chapter v.), or a grain of tartar emetic is administered.

The root of the pomegranate acts upon the tape-worm and other intestinal worms by the bitter principle and the gallic acid which it numbers among its constituents. The epidermis of these parasites is rich in a species of silicate of iron; the gallic acid, from its stronger affinity for iron, decomposes this silicate, and disorganizes thus the epidermis of the worm. This gallic acid, which blackens the blade of the knife with which the bark is stripped off from the root, and exercises so destructive an action upon the epidermis of the tape-worm, cannot fail, of course, to act also a little injuriously upon the mucous membranes, and we see, accordingly, the tongue assume a yellow tint; nay, in some cases, the patient passes, with the stools, shreds of the intestinal lining, part of them tinged yellow, another portion violet. However, these phenomena of colouration and denudation of the intestinal surface, are never attended with any other consecutive accidents.

We have said already, that, in our climate, one single dose of the pomegranate root will hardly, if ever, suffice to effect the expulsion of the tape-worm, and that repeated doses and a persevering course of treatment are mostly required to triumph over that prince of parasites: even when the worm has been struck beyond recovery, it does not die at once, but struggles on in agony for several days; and when dead, it is not always immediately expelled. It comes away mostly in pieces, but the expulsion of a piece, or a number of pieces, is by no means a proof of the *death* of the worm; as long as the

head of the animal remains, the patient need not flatter himself with having got rid of it, even though he should have passed 30, 40, or 100 yards in length of the worm.

45. *Peel of the Pomegranate Fruit.*

The peel of the pomegranate fruit is a still more energetic and efficacious anthelmintic than the bark of the root. Moreover, as the full maturation of the fruit of the pomegranate requires the heat of a southern climate, there is no chance of any possible substitution of an inferior production of the northern part of France for that of Portugal or Algiers. The pomegranate apples may therefore be safely procured at Covent-garden market. A fair pomegranate apple weighs generally about half a pound; some of them weigh one or two ounces more. It is a large apple, composed of a cortical coriaceous skin, enclosing innumerable seeds of an exquisite taste; these seeds are attached to placentas ranged round a central column, and separated by very thin membranous partitions or dissepiments.

The peel of the apple is cut into bits of about an inch in diameter. The patient chews every morning, noon, and evening, a lump of camphor of about the size of a pea, and after this, one of the bits of the pomegranate peel, washing the whole finally down with a wine-glassful of salt water (47, chapter xix.). Whenever the worm is felt to ascend to the throat, a bit of pomegranate peel should be chewed, which will speedily dislodge the unwelcome visitor from that quarter, and drive it down again into the stomach, from which a persevering use of the remedy will, in most cases, definitively expel it in the end. These intermediate doses may be washed down, if the patient prefers it, with sugar-water, tea, or infusion of borage, instead of salt water.

46. *Pomegranate Wine, and accessory Medication against the Tape-worm.*

Throw a handful of pomegranate rootlets, or scrapings of the roots, or peel of the fruit, into a bottle of white wine; in about twelve hours it will be ready for use.

A small wine-glassful of the pomegranate wine is taken every morning, and each time that the worm is felt to ascend to the throat; it may be taken, at the option of the patient, either *neat*, or mixed and beaten up with a small wine-glassful of olive oil.

In the course of time, pomegranate wine acquires a black tint, owing to the formation of a gallate of iron; however, the darker the colour of the wine, the greater is its efficacy.

In cases where the tape-worm obstinately resists the application of the pomegranate in its various forms, the following medication will sometimes be crowned with the desired success. Take three times a day (morning, noon, and eve), about the size of a pea of flower of sulphur, rolled up bolus-shape in a piece of tissue paper, and wash down each dose with a mouthful of salt water. At bed-time, take an opium pill strong enough to procure from four to five hours profound sleep; as soon as you awake, take a dose of castor oil (16, chapter vi.). The narcotic effects of the opium upon the worm are more lasting than those upon the patient; the worm will accordingly not yet have recovered from its stupor, and may thus be expelled by the action of the castor oil before it is able to fasten again upon an intestinal surface.

Flowers of sulphur (or brimstone) is a sovereign remedy against teres and ascarides. Sandstone cisterns, and the troughs of animals, should always have placed in them a stick of sulphur.

CHAPTER XIX.

47. *Salt Water.*

Dissolve an ounce of bay salt in a quart of water; when the impurities of the salt have subsided, decant the clear solution off. If you wish to render it more agreeable to the taste, you may add the juice of a lemon.

Salt water is an excellent vermifuge. The dose is, morning and evening, a quarter or half a glassful, preceded by the chewing of a bit of camphor about the size of a pea.

It is also an excellent gargle in cases of coughs, obstructions in the throat, angina, laryngeal affections.

For an obstinate cold in the head, the sniffing of a small portion of it through a quill will be found useful.

CHAPTER XX.

48. *Sedative Water.*

a. Strong Sedative Water.

Take of Liquor of ammonia (22° B.), 3½ oz.
Camphorated alcohol (9, chapter v.), 3 drams.
Bay salt, 1⅛ oz.*
Water, 1 quart.

Mix the camphorated spirits of wine and the liquor of ammonia together in a flask with ground stopper; close the flask, and shake it; let it stand at rest a short time. On the other hand melt the salt in the water, and add a few drops of liquor of ammonia to the solution; let it stand until the impurities have subsided; decant the clear liquid off, or strain it through tissue paper, and add the mixture of ammonia and camphorated alcohol quickly to it. Close the bottle, and shake it. Take care to keep the bottle always well closed, and in a cool place. Do not inhale the odour of the sedative water except in cases where it is expressly prescribed.

b. Sedative Water of Medium Strength.

Take of Liquor of ammonia (22° B.), 2¾ to 2⅞ oz.
Camphorated alcohol (9, chapter v.), 3 drams.
Bay salt, 1⅛ oz.
Water, 1 quart.

Mix and keep as above.

c. Common Sedative Water.

Take of Liquor of ammonia (22° B.), 2⅛ oz.
Camphorated alcohol, 3 drams.
Bay salt, 1⅛ oz.
Water, 1 quart.

Mix and keep as above.

The smell of the sedative water may be disguised by the addition of a sufficient quantity of essence of roses, or some other essence. However, this is a mere superfluity, which most patients will easily dispense with.

* The addition of another ounce of salt would tend to increase the action of the water; but then the latter would leave on the skin a disagreeable efflorescence.

The sedative water of medium strength, and the common quality, may also be made from the strong preparation by adding to the latter respectively, half a pint, and a pint and something more than a gill, of water.

If you want to save yourself the trouble of weighing the ingredients, you may prepare the common sedative water as follows:—Dissolve a handful of bay salt, or kitchen salt, in a glassful of water; let the impurities subside, and decant the supernatant clear liquid off into another glass. Pour two liquor glasses full of liquor of ammonia, along with half a liquor glassful of camphorated spirits of wine (9, chapter v.), into a quart bottle; close the bottle and shake it; take out the stopper again, and add the salt water; shake the mixture, and fill the bottle up with water.

The use of the strong sedative water is restricted to veterinary practice, and to cases where the skin is hard and callous.

The use of the water of medium strength is resorted to more especially in cases of stings of adders, scorpions, or other venomous insects.

But generally we use the ordinary sedative water, and even this requires sometimes further dilution (in the case, for instance, of persons with a delicate skin, or pock-marked, or when the application touches a scar).

The sedative water acquires, after a time, an odour of bitter almonds, proceeding from the intimate combination of the ammonia and camphor. However carefully it may have been prepared it will, after a time, also deposit a white powder consisting of an ammonial camphor soap. Each time, therefore, that you want to use the sedative water, take care to shake the bottle vigorously, that this deposit may be equally distributed through the liquid mass.

The sedative water is applied in *lotions* or *compresses.*

Lotions with sedative water are applied best with a clean soft sponge, or with the palm of the hand moving gently over the affected part.

Where lotions prove unavailing, compresses must be had recourse to. A piece of linen folded in four, and imbibed with the sedative water, is applied on the affected part. The direct application of sedative water compresses on the skin produces a rubefaction which may prove inconvenient on certain parts of the body; the compress should, therefore, as a general rule, be removed whenever the sensation of burning caused by it becomes disagreeably acute. However, the sen-

sation of burning, or smarting, will always readily yield to a little camphor pomatum spread over the rubefied surface.

A cataplasm (19, chapter vii.) copiously wetted with sedative water may, in certain cases, advantageously replace the compress. This cataplasm may be kept on a whole night without causing the least rubefaction. The action is equally sure as that of the compress, though perhaps somewhat more slow. In the application of sedative water on the head, care must always be taken to protect the eyes from contact with the water, by placing a thick bandage over them, which ought to be arranged, moreover, in a manner to prevent the sedative water trickling or running down the neck; the compress imbibed with the water is then applied on the head, and an additional supply of the liquid poured over it until the patient feels that it has penetrated through the hair; fresh supplies of sedative water are poured on from time to time until the patient feels relieved, which is generally in about 10 minutes.

Theoretic Explanation of the Action of Sedative Water on the Animal Economy.—When one witnesses, for the first time, the prompt and sure effects of sedative water, the action of that agent seems to border on the *marvellous*. Now, the word "*marvellous*," in medicine, has always been a *bill at sight* drawn by quackery upon ignorance; and as we have at heart to expel the "*marvellous*" from the province of medicine, and to do away with quackery, by enlightening the ignorant, we may be permitted to give here a simple and perspicuous explanation of the curative action of the sedative water.

The blood, that essentially vital liquid which the circulation distributes through the body, to serve for the nutrition and elaboration of its several organs and parts, loses its organizative and formative properties in proportion as its fluidity happens to be impaired either on the side of the too little, or on the side of the too much; in other words, in proportion as the albumen *, which forms the base of the blood, lacks or abounds in the menstruum that holds it in great part in solution. This menstruum consists of water, along with certain salts, among which hydrochlorate of ammonia (sal ammoniac), and chloride of sodium (common salt) play the principal part.

The introduction into the blood-vessels, of an acid, or an

* The albumen of the blood is of the same nature as the soluble portion of the white of eggs.

essential oil, or a hydrocarbon (carburetted hydrogen), or alcohol, coagulates the albumen of the blood in the same way as the action of heat coagulates the white of an egg. Excessive heat, acting on the albumen of the blood, produces the same effect, from the ensuing evaporation of the aqueous molecules of the blood.

The albumen, coagulated in a blood-vessel, acts, of course, as an obstacle to the circulation. Where it does not completely obstruct the passage of the blood, the circulating movement will, at first, be slackened in the obstructed part, until the impetus of the blood triumphs over the obstacle, when the velocity of the current will increase in proportion to the extent and duration of the delay which it has suffered.

If the coagulated lump happens to intercept the passage completely, it forms a species of diaphragm, having on the one side a void, on the other an excessive accumulation of blood, and causing thus suffering on both sides; on the one from excess, on the other from want of the vital fluid.

Now, let us suppose that, instead of one coagulum, there are two, the one at a certain distance from the other, and both hermetically closing the vessel—what will be the result? Naturally this: the blood, imprisoned between these two closed valves, will remain stagnant, and thus be deprived of the reparatory modifications which it acquires in circulating, and of the benefits which accrue to it from the periodical contact with the air in the lungs. Now, blood that has ceased to circulate, suffers decomposition, and this again, disengages a large proportion of caloric. The patient will consequently experience at first heat, and other inflammatory symptoms; the forced introduction of the compressed blood into the capillaries of the epidermis, and the attendant violent formation of a new set of capillaries will necessarily give rise to redness and swelling of the affected parts; the decomposition of the colouring matter of the blood will lead to the decolouration of these parts, and finally to the formation of pus, which is simply the decolorated blood turning to putrid fermentation.

If these obstructions happen to occur in the *lungs*, inflammation of the chest, hepatization of the lungs, &c., will be the result: if in the *heart* and its *dependencies*, violent and irregular palpitations; if in the *stomach* and *intestines*, disturbance of the digestive functions, &c.; if in the *muscular tissues*, numbness, difficulty of movement, progressive formation of purulent collections, rheumatic pains, &c.; if in the

articulations, gouty affections, tumors, white swellings, &c. And if the net of vessels that envelop the brain happens to be the seat of the obstruction, the number of disorders that may result therefrom in the physical and moral functions concentrated in that organ is positively incalculable; megrim, violent headache, cerebral fever, stupor, delirium, accesses of madness, &c.

Here you have the whole theory of fever, of the irregularities and intermittences of the pulse, &c.

To this we have to add still, that the stagnation of the blood gives rise to the formation of an acid, which, again, carries its coagulative action to other parts of the circulatory system, and occasions thus in its turn morbid symptoms of the same nature as those enumerated above.

Now, by what means can we combat these morbid phenomena? It is evident that our medication against them must be based upon the principle of re-dissolving the coagulated lumps, re-establishing the interrupted communication between the circulatory vessels, and restoring the circulation to its natural and proper course by removing the obstacles that impede or obstruct it. The old school employed in such cases, empirically, and proceeding upon very different theoretical ideas from our own, baths, diet, and leeches or bleeding. But baths, which indeed would supply the thickened blood with aqueous molecules, do not penetrate everywhere, and to the deeper-seated organs: and, besides, the utmost quantity of water which they can possibly restore to the blood by absorption, could never neutralise the disorganizing action of an acid generated in the blood, and still less that of the cause generating it. Diet, or abstinence from food, is actually a new illness superadded to the one already existing; the starving a patient is, in most cases, equivalent simply to killing him by hunger, instead of letting him quietly die of the fever. Leeches and bleeding will indeed take blood away from the vessels where the circulation continues uninterrupted, but they will not free the obstructed vessels; the artificial loss of blood will, in most cases simply tend to superadd to the inflammatory affection the morbid effects of exhaustion and atony.

A proper insight into the theory of the cause of so many inflammatory diseases has led us also to the discovery of a practical method of medication by which to combat and cure them. The success which has attended the application of that method has more than realized our expectations.

The sedative water, applied on the skin, transmits, by absorption, to the superficial vessels, ammonia and salt, those two powerful solvents of sanguineous coagulation. The superficial vessels transmit, from one to the other, down to the deepest-seated tissues, the beneficial action of these agents. The albuminous obstacles to the free circulation of the blood, are attacked at all points, and redissolved with such rapidity, that it is really often difficult to tell the exact time when the improvement commenced. The desired effect is sometimes produced in four or five minutes; the megrim disappears, the pulse is restored to the normal state, the fever ceases, the skin recovers its proper temperature, &c.; and all this in so short a time, that the patient believes himself resuscitated rather than cured.

But, besides the ammonia and salt, camphor also forms one of the ingredients of sedative water, and imparts to it strong vermifuge and antiputrid properties. The mere application of a simple poultice, copiously moistened with sedative water, on the abdomen, suffices in verminous affections to relieve from the pricking of the intestinal worms.

The application of sedative water is consequently resorted to against every kind of fever and inflammation, brain-fever, apoplexy, violent palpitations of the heart, swelling and redness of the limbs, cutaneous and erysipelatous eruptions, intoxication, rheumatic pains, paralysis, hydrophobia, stings of serpents and insects infiltrating into the blood an acid poison, &c., &c. In short, as there exists scarcely a morbid affection without fever, sedative water may be considered a remedy of an almost universal range of application. Excoriations of the affected parts will sometimes necessitate a little guardedness and management in the application of sedative water; however the acute burning and smarting which it causes on the denuded surface is, after all, only transitory, and offers no danger.

It has already been mentioned that the patient should, as much as possible, avoid inhaling the odour of the sedative water, as the volatile alkali disengaged from it might act injuriously on the lungs. It will even be advisable in cases where compresses are applied on the neck, face, or head, that the patient should walk about, if possible, in order that he may constantly leave the ammoniacal fumes behind him, and breathe only the air least impregnated with them

CHAPTER XXI.

SYRUPS.

49. *Antiscorbutic Syrup.*

(*a.*)

Take of Leaves of cochlearia (scurvy grass), Leaves of marsh trefoil, Cresses, Radish, Bitter oranges, of each 8 oz.
Cinnamon, 2 drams.

Let these ingredients macerate for five or six days in two quarts of white wine; strain and squeeze out the grounds. Melt 1 lb. of sugar in a pint of water over a gentle fire, let the solution brown a little, and add it to the strained liquid. Keep the syrup in a cellar.

Dose: one table-spoonful every morning.

This syrup is given to children of weak constitution, chlorotic females, and persons subject to worms.

(*b.*)

If you have to prepare the antiscorbutic syrup in a season when you cannot procure the cresses, scurvy grass, trefoil, &c., you may substitute the following for formula (*a.*)

Take of Buds of the fir, Dried orange or lemon peel, Yellow pollen of hops, of each 1 oz.
Hydrochlorate of ammonia, 1 dram.
Cinnamon, 2 drams.
White wine, 1 quart.
Sugar-syrup prepared over the fire, 2 lbs. (1 lb. of sugar dissolved in a pint of water, as above).

Prepare, keep, and administer as above.

50. *Syrup of Camphor and Gum Arabic* *.

Take of Finely-powdered gum arabic, 8 oz.
Sugar, 1 lb.
Camphorated alcohol, 6½ drams.

Melt the sugar over the fire, in a pint of water, add the

* The preparation of this syrup, and of that of ipecacuanha, had better be left to a respectable apothecary.

camphorated spirit of wine to the solution, and shake the mixture well until the ingredients are thoroughly incorporated.

Dissolve the gum arabic in half a pint of cold or lukewarm water, and filter the solution.

Mix the gum arabic solution and the camphorated sugar solution together, and shake the mixture well every time you want to use it.

You may also dissolve the gum arabic in the water-bath; but in that case you must use a double quantity of water, and take care to stir the mixture frequently. When the gum arabic is thoroughly melted, take the solution out of the water-bath, let the impurities subside, or, better still, filter the liquid; replace it now in the water-bath, and keep it there until it has lost one third of its volume by evaporation.

The syrup of camphor and gum arabic is rarely limpid; this, however, matters but little, as it is a defect which only affects the eye. A table-spoonful of this syrup contains about 1¼ grain of camphor.

This syrup is given to children who refuse to take the camphor powder, and also to persons whose stomach has been denuded of the mucous lining by the ingestion of a corrosive poison, or from some other causes; since, under these circumstances, the ingestion of a pulverulent body may cause excruciating pains, and bring on vomiting.

51. *Syrup of Ipecacuanha* (*see foot-note to* 50).

Take of Alcoholic extract of ipecacuanha, ½ oz.
Best loaf-sugar, 1 lb.

To prepare the alcoholic extract of ipecacuanha, let four ounces of ipecacuanha-root macerate for fifteen days, in the sun, in one pound of alcohol of 21° Cartier; filter, and distil the filtrate to dryness. Dissolve the extract thus obtained in a quarter of a pint of pure water, and filter the solution; or procure half an ounce of alcoholic extract of ipecacuanha from a respectable apothecary's, and dissolve it in the same way. On the other hand, melt the pound of sugar in a pint of water, over the fire; let the solution boil, add to it the aqueous solution of the alcoholic extract of ipecacuanha, and keep boiling until the liquid has acquired syrupy consistence.

Dose: one table-spoonful to children in severe cases of croup.

52. *Succory Syrup.*

Take of Rhubarb-root, cut in small pieces, 5 drams.
Dry roots and leaves of succory (wild endive) $1\frac{3}{4}$ oz.
Iceland moss, $2\frac{1}{2}$ drams.
Sugar, 1 lb.

Boil the succory along with the Iceland moss in a pint of water to one half. When you are just on the point of removing the decoction from the fire, put into it the rhubarb. Let it infuse and macerate till next morning; strain the liquid through a stout linen cloth, and mix with it the sugar melted over the fire, in a pint of water. Shake the mixture well.

The succory syrup is a gentle purgative and vermifuge. It is given to babies at the breast and infants of tender age, and also to children who refuse to take aloes.

Dose: a tea-spoonful morning and night every fifth day.

CHAPTER XXII.

53. *Tar Water.*

Tar is a product of the distillation of the wood of the pine and the fir-tree. It is a resinous pitchy substance of black colour, and a peculiar penetrating odour.

a. Tar water to drink.

Dip your finger in Norway tar and anoint with it the inside of a water-jug, or other drinking vessel; rinse the vessel well to wash off any loose particles of the tar. This vessel may be used for years without a fresh coating of tar. Whenever you want to drink tar-water you have simply to pour spring water into the tarred vessel, and after a few minutes it will be ready for use. However, should you find it still too strong, you may add a table-spoonful of it to a glassful of spring water.

One table-spoonful of tar-water will give to wine the peculiar odour of the Spanish wines, which is imparted to the latter by the tarred leathern bottles in which they are carried.

The drinking of tar-water purifies the blood, and promotes the secretion of the urine. Tar-water is one of the best substitutes for camphor which we possess.

b. Tar-water for injections into the sexual parts, &c.

Boil about the size of a pea of tar in the requisite quantity of water, and inject lukewarm with a tin syringe (see chapter xiii.).

c. Tar-water for a hip-bath.

Boil a handful of elder-flowers, a handful of common salt, and about the size of a pea of tar in a sufficient quantity of water. Stir the decoction with a key or other piece of iron taken red hot out of the fire. This hip-bath is taken two or three times a day to combat affections of the genital parts, and more particularly such as are of suspicious origin. The genital parts are, after the bath, kept covered with camphor powder or camphor pomatum.

CHAPTER XXIII.

DRESSING OF WOUNDS, SORES, ULCERS, ETC.; LINT, BANDAGES, COMPRESSES, PERFORATED LINEN, STICKING-PLASTER, PIG'S BLADDER, ETC.

Dressing has for its object to defend the denuded surfaces of wounds, sores, ulcers, &c., from the external air, and thus to preserve the injured or affected parts from the danger of purulent and gangrenous decomposition. The camphor dressing of our method answers this purpose to the fullest extent; and we may safely assert that its application will prevent in future those fearful contagions that have hitherto so often decimated the unfortunate wounded in the hospitals.

We use, in our method of dressing, only good old linen (washed perfectly clean and white in lye), as the fibres of cotton are not organized to imbibe moisture like the fibres of linen. We make an exception, however, in favour of cotton in the case of *compresses for the application of sedative water.* For *lint* we select pieces of old linen, of moderate fineness and loose texture, and well washed in lye. The pieces are cut in strips about two inches long, and one and a quarter wide; the strips are then unravelled thread by thread.

Perforated Linen.—Take a piece of linen of the shape and size required by the form and extent of the wound or sore you want to cover, and perforate it all over, at equal distances, with holes about a quarter of an inch wide. These holes are intended to let the pus or discharge from the wound ooze through freely.

Have always in your medicine chest a number of *linen compresses* of various sizes, and of *linen bandages* of various lengths.

Our way of dressing a wound is as follows :—

A piece of perforated linen of the requisite form and size is imbibed with camphorated oil, applied on the wound, and then sprinkled over with a tolerably thick layer of fine camphor powder. Over this is placed a layer of pledgets of lint spread with camphorated pomatum on the side turned to the wound; if the latter happens to be of considerable extent, it is covered with a double layer of pledgets, the one above the other. Dry compresses are then spread over the lint, and the whole dressing is secured by means of properly applied bandages; the latter, finally, are imbibed with camphorated alcohol (9, chapter v.). With a dressing of this kind a wound is always safe from purulent or gangrenous decomposition; there is very little discharge, and the pellicle of cicatrization begins to form often in so short a time as 24 hours.

Adhesive Plaster, Sticking Plaster, Diachylon.—It is often necessary to keep the sides or lips of a wound together; in some instances, also, single bandages will not suffice to secure the dressings of a wound To effect these purposes we use certain preparations of adhesive or agglutinative substances spread on linen or calico.

54. *Strong Adhesive Plaster.*

Take of Olive oil, Hogslard, } of each 6½ oz.
Water, 13 oz.
Camphor powder (grated camphor), 1 oz.

Heat over a gentle fire, and when the hogslard is melted, add to the mass

Finely-powdered litharge, 6½ oz.

When the mass has become limpid again, add to it

Yellow wax, Turpentine, } of each 1 oz.

Take the plaster off the fire when it has acquired the proper consistence, which may be readily ascertained by letting a little of it drop on a plate, or into cold water.

55. *Simple Adhesive Plaster (Camphorated Sticking Plaster).*

Take of Yellow wax, 1 oz.
Hogslard, 3½ oz.

Incorporate the two substances thoroughly, in the water-bath, and add to the liquid mixture

Camphor powder, 1 oz.

Stir the mass to incorporate the camphor powder.

Both these compositions are spread hot on one side of long strips or bands of linen or cotton, about four to eight inches in width; when the plaster has become cold, a moistened roller is passed over the spread surface in order to distribute the composition equally all over it.

The bands spread with the strongly adhesive plaster (54) are usually cut into strips about half an inch wide, and serve to keep together the sides or lips of wounds; they are also used to secure the dressings of a wound. The bands spread with the simple adhesive plaster are used simply to cover the other dressings, in order to shield the wound the more effectually from the external air, and to prevent the oozing out of the pomatum.

Pig's Bladder.—We use pig's bladder for skull-caps, to keep on the dressings with camphor pomatum on the head. We use them also for gloves to keep the extremities immersed in camphorated oil or camphor pomatum. For this purpose an opening is cut into the bladder, sufficiently large to let the affected hand or foot pass through; a certain quantity of camphorated oil, or camphor pomatum, is then deposited within the bladder, and the affected member plunged into it; the edges of the bladder are moistened with water, and kept pressed round the ancle or the wrist, as the case may be, by means of a bandage, which is unloosened subsequently when the moistened end of the bladder has dried on the skin, and thus keeps on of its own accord.

Oil-silk bags serve to keep the genital parts immersed in a bath of finely-grated camphor in the day-time, of camphor pomatum at night. We use oil-silk also for finger and thumb stalls, mittens, and gloves, to keep the affected fingers, thumbs, or hands immersed in camphor pomatum, or secure the dressings of wounds in these organs.

India-rubber bags, surtouts, and gloves are advantageously employed to oppose the evaporation of the spirit from camphorated alcohol dressings or applications. Neither pig's bladder nor oil-silk would answer this purpose, as the alcohol would shrivel them up.

Have always in your medicine chest silk thread drawn through adhesive plaster (55); curved needles; a bistoury, or bistoury-shaped knife, to open blisters and abscesses; a

pair of blunt-pointed scissors, to remove the dead skin; a pair of small forceps, to seize arteries (for the purpose of tying them).

CHAPTER XXIV.

SUPPRESSIONS IN THE THERAPEUTICS OF THE OLD SCHOOL, AND THE REASONS WHICH HAVE INDUCED US TO MAKE THEM.

The preceding 23 chapters comprise the whole sum and substance of the pharmaceutical code of our new method of medication. We have only to add now a brief enumeration of the agents and appliances of the old school, which we have entirely banished from our therapeutics, and the reasons that have induced us to do so.

1. We suppress all bleeding, local or general, no matter whether with the lancet, or by cupping, or application of leeches. The idea that bleeding purifies the blood by removing from it the vitiated or morbid particles, is too absurd to need refutation. In our opinion, bleeding, in whatsoever manner performed, adds simply a fresh malady to the one which already preys on the constitution of the patient; the physician who has recourse to it, *complicates* the disease which he wishes to *combat;* the relief experienced after bleeding is always only apparent, whereas the weakening effect of this most irrational operation is sure to tell upon the constitution of the patient; bleeding draws from the healthy vessels part of their contents, but fails to restore the circulation in the vessels gorged with stagnant blood.

And, gentlemen of the old school, why have recourse to such violent and sanguinary means? Do you wish to combat and lower the fever? You will not succeed in that by bleeding. Simple applications of sedative water, in compresses or lotions, will lower the fever in most cases in five minutes, and even in the most exceptional cases, in a quarter of an hour; the pulse will fall from 180 to 60. And as you judge of the fever by the pulse alone, what would you have more? Ask the patient: he will tell you that he feels relieved. Leave off, then, using the lancet; it has done harm enough since the days of Hippocrates. And leeches and cupping-glasses are still more injurious: the former envenom the wounds which they make, the latter disorganize the tissue to which they are applied.

2. We suppress all blisters and issues, on the same principle that leads us to heal a wound as speedily as we may. The idea that nature should demand the creation of an artificial disease for the purpose of getting rid of a natural one, is simply an absurdity of the old school. When you find that a purulent collection has formed in an organ, open a passage through which it may void itself, but do not fancy that diseases will run out, like pus, through any opening you may choose to make in the affected body.

Vesicatories are, moreover, attended with a positive danger: the blister raised by them may break, and the remains of the cantharides coming into immediate contact with the denuded dermis, dysuria (attended with violent pains), œdema, and erysipelas may be the result. And what sufferings do not those fearful monster blisters, that cover the whole back, or the entire chest, inflict upon the unfortunate patient! We suppress also the *moxa* and the *mustard poultice;* the former inflicts the most excruciating pain on the patient, and leaves an indelible mark, without producing any salutary effect that may not equally be attained by much milder and more harmless means: the latter is rendered unnecessary by the sedative water and camphor applications of our method.

We suppress also all applications of ice, more particularly on the head, since such applications allay the inflammation which they are intended to combat, only by disorganizing the liquids and tissues of the affected part, and abate the cerebral fever only at the expense of the prostration of thought and intellect, even where they do not lead to a fatal termination. And all that the old school endeavours to attain by the dangerous and so often fatal use of ice, we obtain in a few minutes by the harmless application of sedative water.

3. We suppress, except in rare cases, the use of emetics, for fear of cerebral congestion, excoriation of the stomach and œsophagus, and lacerations of the pulmonary organs. Purgatives clear the stomach in a much more innocuous manner.

4. That we suppress the use of the mineral salts in our method of medication, and the reason why, have been stated and fully explained already in the First Part of this work.

5. We suppress also the use of sulphate of quinine, that awful medical illusion, to which the fever refuses to yield as it yields to bark, and which triumphs sometimes over the fever only at the price of inflammation of the stomach and intestines. And why have recourse to so doubtful and dangerous an agent, when any fever whatsoever may readily

be combated and cured with a few doses of camphor, and a few applications of sedative water?

6. We have never recourse to the use of inhalations of the so-called anæsthetic agents—sulphuric ether and chloroform; the inhalation of these agents, and more particularly of the latter, endangers the life of the patient.

We suppress most absolutely the starvation system of the old school, because we are convinced that a patient requires food, according to his forces and his appetite, just as much as an individual in the enjoyment of health; and that hunger fearfully complicates all kinds of disease. Under our medication, every patient eats as soon as he feels an appetite; and even should the digestion be attended with some febrile symptoms, an application of sedative water will always speedily triumph over them.

PART III.

In this Third and last Part, we propose to apply the principles developed in the two preceding Parts, to the treatment of the divers diseases to which the organism is liable.

To facilitate reference, we shall arrange the diseases in alphabetical order, and shall use, moreover, in preference, those terms by which the several diseases are respectively most familiarly known.

We have already indicated, in the Second Part, that our method of medication, with some trifling alterations and substitutions, is equally applicable in the diseases and distempers of cattle and other animals.

In a first or introductory section, we shall give a brief summary of those hygienic rules which we have laid down in the First Part for the guidance of all who wish to preserve or recover their health.

Section I.

Hygienic Regimen.

1. Avoid draughts and damp; keep your feet warm; guard against the sudden variations of temperature.—(Compare Part I. chapter v.)

2. Choose a high, well-lighted and ventilated dwelling, with an eastern or southern, or at all events a western, aspect.—(Compare Part I. chapter ii.).

3. Change your body linen night and morning, and also whenever you happen to perspire copiously; but previously to each change sponge your body with camphorated spirits of wine (Part II. chapter v., 9.), or with eau de cologne in cold weather; and in hot weather, or if you feel feverish, with sedative water (Part II. chapter xx. 48.). After the sponging, rub your body, or have it rubbed with camphor pomatum. (Compare Part II. chapter v., 13. *a.*)

4. Sprinkle every evening grated camphor between your mattresses or bed and sheets, and do the same to the beds of

your children. (Compare Part II. chapter v., 7.) This will put to flight all unpleasant nocturnal visitants.

5. Keep regular hours for your meals; eat and drink in moderation. (Part I. chapter iii.)

6. Rest yourself half an hour after each meal; take bodily exercise after, or perform some manual labour; but if you can possibly avoid it, do not engage in mental occupations after your meals.

7. The early hours of the morning, before breakfast, are the best time for study and mental occupations. The camphor cigarette will always be found a most useful companion of the studious and sedentary.

8. Have your dishes highly, but agreeably seasoned; condiments and dessert liqueurs are powerful vermifuges. Insipid and mucilaginous food, sweetmeats, and green fruit lay the intestines open to the invasion of the hordes of parasitical worms that prey on the human organism. Spiced food agrees with every constitution and every age. Scholastic medicine has always put its ban upon condiments; but do not you be influenced by the croakings and tirades of the learned brotherhood: the sound digestion which you will be sure to enjoy if you adopt our regimen, will speedily convince you of the correctness of our views, and the fallacy of the doctrines preached by the Hippocratians, Galenians, Celsians, Hahnemannians, *et hoc genus omne*. (Compare Part I. chapter iii.)

9. Avoid late hours. One hour's sleep before midnight is worth three hours after. Sleep during daytime can never replace a lost night's rest.

10. Chew about the size of a pea of camphor three times a day, and wash it down with a mouthful of succory water, or decoction of hops (Part II. chapter xii., 33 and 34), or salt water (Part II. chapter xix.). Take the same dose of camphor in case of sleeplessness.

11. This regimen, by promoting the appetite, may, after a time, lead to constipation; to combat and cure this, take aloes and vegetable broth (decoction of herbs), in the manner prescribed, Part II. chapter i., 1 and 2. To children refusing to take aloes, administer every morning a tea-spoonful, or a table-spoonful, according to circumstances, of succory syrup. (Part II. chapter xxi., 52.)

12. Babies at the breast will receive the benefit of this hygienic regimen through the milk of the mother or nurse. In their little indispositions, frictions on the abdomen with camphorated pomatum will be found to give speedy relief; the

size of a hazel-nut of camphor pomatum may also be introduced into the anus by way of clyster.

13. Never over-exert yourself, either physically or mentally; never exceed the bounds of a sage moderation, even in legitimate pleasures.

14. Be sincere and true-hearted in friendship and love; honest, just, and straightforward in your dealings, compassionate and indulgent to your fellow-creatures. Deceit, avarice, selfishness and covetousness, are worms that gnaw and destroy the noblest organs of man. (Compare Part I. chapter ix.)

15. If you follow these rules, you will save yourself a world of illness and suffering.

Section II.

Diseases and their Treatment according to our Method.

(It will be understood that the hygienic régimen (Section I.) forms an indispensable adjunct to the treatment of every disease spoken of in this work.)

1. Abscesses.

Causes.

An abscess is a sub-cutaneous or sub-muscular gathering of purulent matter, determined by the disorganization of the tissues. The introduction of splinters, prickles, spikes, needles, and other foreign bodies of the kind, or the parasitism of the larvæ of insects, will, by cutting, bruising, and tearing the flesh, determine the decomposition of the injured solids, and of the liquids about them, terminating in the formation of a yellowish, milky, acid product, which from its acidity acts as a decomposing agent on the surrounding healthy tissues, and gives rise to febrile symptoms, until it finds an opening outward.

Mercurial remedies have a peculiar tendency to give rise to the formation of abscesses of various kinds. (See Venereal Diseases.)

Treatment.

When suppuration has once fairly set in, final recourse to the lancet cannot be avoided. The ripeness of an abscess is indicated by the thinness and yellowish colouration of the skin in the most prominent part of it, and by the fluctuation of matter, which may be felt under the finger. The incision

should be carried down to the most dependent part of the abscess, that a free issue may be afforded to the purulent matter; a little gentle squeezing of the surrounding parts may also be resorted to for this purpose. After the sack has been voided, it ought to be thoroughly cleansed by means of frequent injections of lukewarm tar-water (Part II., 53), and finally of camphorated oil (Part II., 10); this done, the sack is once more voided by compression, the lips of the incision are brought together, and the wound is covered with perforated linen saturated with camphorated oil; the linen is strewed over with a layer of grated camphor, and over this are placed pledgets of lint (Part II., chapter xxiii.), well anointed with camphor pomatum (Part II., 13); linen compresses (dry) are laid over the lint, and the whole dressing is kept in its place by means of properly-applied bandages, which are then moistened with camphorated spirits of wine (Part II., 9). Should febrile symptoms make their appearance, applications of sedative water (Part II., 48) in compresses round the neck and wrists, and on the head, will speedily disperse them. With this mode of treatment, the patient may take his three or four meals a day without the slightest danger.

In cases where it is suspected that the action of mercurial preparations has given rise to the formation of the abscess, injections with sulphate of zinc (Part II., 37, *c*.), must be made into the sack before each dressing, and the patient must drink decoction of sarsaparilla, either simple or ioduratcd (Part II., 40), and have recourse also to blood baths and to the application of galvanic plates (Part II., 27) to the affected part three times a day, half an hour each time.

2. Almonds, Swelled; Angina Tonsillaris, Swelling of the Tonsils; Enlargement of the Uvula or Cion; Sore Throat.

Causes.

The introduction of a prickle or splinter, or an ascaris or other worm into the glands of the throat, may determine the abnormal enlargement or swelling of these glands. Mercurial preparations often produce the same effect.

Symptoms.

The glands of the throat appear red and swelled; the

patient swallows and breathes with difficulty; ringing in the ears.

Treatment.

The tonsils are touched three or four times a day with the finger, or a little rod or plug dipped in camphorated spirits of wine (Part II., 9); frequent gargling with salt water (Part II., 47) is had recourse to; compresses of sedative water are applied behind the ears, succeeded subsequently by camphor cerate plasters (Part II., 14); a dose of calomel (Part II., 6) is administered to the patient; aloes (Part II., 1) every four days; camphorated emollient clysters (Part II., 21) every morning, and from time to time a worm clyster (Part II., 24); sedative baths (Part II., 3).

In many cases the use of the camphor cigarette (Part II., 8) will suffice to cure a sore throat; in others, gargles with camphorated spirits of wine will speedily triumph over this affection, which used to prove so rebellious to the medication of the old school, and often necessitated even the extirpation of the affected glands.

In cases where the obstruction of the glands proceeds from the action of mercurial preparations, the patient must, in addition to the above treatment, apply from time to time, for about a minute, a couple of small galvanic plates (Part II., 27) to the affected glands, and afterwards gargle the throat with a solution of 15 grains of sulphate of zinc in a glassful of water; he should also drink the iodurated decoction of sarsaparilla (Part II., 40).

3. Ankylosis, Stiff Joint.

Causes and Effects.

The introduction of the larva of an insect, of a prickle or splinter, or of a globule of mercury, into the cartilages of the articular ends of the bones, or the erosion of these cartilages from a violent blow or fall, will often bring on an inflammatory action, with an exudation and deposit of calcareous matter between the articular surfaces, which impedes more and more the free play of the joint, and ends, finally, by soldering the two bones firmly together. We distinguish two kinds of ankylosis, viz. the *true* and the *spurious;* we call *true ankylosis* the growing together of two bones, by the ossification of the ligaments attaching the two ends of them, and the interposition of a solder of phosphate of lime between the two articular cartilages; true ankylosis, accordingly, destroys

altogether the mobility of the joint. *Spurious ankylosis* is simply the abnormal development of the end of one of the bones, which admits still of a certain, though very limited, play of the joint.

Treatment.

True ankylosis is incurable; medicine cannot restore a lost organ, and still less re-make an articulation, but its timely interposition may hinder the formation of an ankylosis. We prescribe, in cases of incipient ankylosis, madder-root (in the form and manner stated Part II., chapter xv.); the patient takes a leg bath (Part II., 4, *a*) night and morning; compresses imbibed with sedative water are applied on the affected joint three times a day, for about ten minutes each time; after which the place is covered with a camphorated cerate plaster (Part II., 14). If there happen to be ulceration, the application of the sedative water must be confined to the non-ulcerated parts, and the ulcers dressed in the usual manner of dressing wounds (Part II., chapter xxiii. See also WOUNDS). In either case galvanic plates are applied to the affected joint half an hour before each dressing. Should the sedative water compresses cause too copious an eruption of inflamed pustules, saline cataplasms (Part II., 19) must be substituted for them; and should those still be too painful to endure, these applications must be suspended altogether, and the inflamed surfaces kept continually covered with camphorated cerate.

In most cases of ankylosis, the affected joint is bent at a greater or less angle; an appropriate stretching apparatus must be had recourse to, in such cases, in order to restore the limb gradually to its original straightness. A proper apparatus of this kind will not interfere with the usual occupations or exercises of the patient.

4. APOPLEXY.

Causes.

The immediate cause of an apoplexy is a compression of the brain, occasioned by an excessive accumulation or congestion of blood in the vessels surrounding that organ; the brain, strongly compressed by the congested vessels, can no longer perform its functions: in some cases the walls of the preternaturally-extended vessels burst, and life becomes extinct, because the brain, that most essential organ, finds itself suddenly paralysed or disorganized. Immoderate indulgence in the

pleasures of the table, and excess of venery, are frequent causes of these terrible fits; constipation acts as a predisposing cause. Corpulent, plethoric, thick-set, short-necked persons should take care to keep their bowels open, to regulate their meals, and be moderate in their pleasures, since their physical constitution renders them liable to congestions.

Symptoms.

The person struck with apoplexy falls down suddenly, deprived of sense and motion. An attack of apoplexy attended with cessation of the arterial pulsations and complete loss of sensibility, is termed *fulminating*. All cases of apoplexy arising singly from *congestion*, and not from *hæmorrhage* or *effusion of blood* on the brain, are curable by our method of medication.

Preventive Treatment.

Persons of an apoplectic make ought to take aloes (Part II., 1) every three days; every morning an emollient camphorated clyster (Part II., 21); every evening about the size of a pea of camphor, and afterwards a bowl of infusion of borage (Part II., 36). They ought to be regular and moderate in their meals, and avoid as much as possible the use of alcoholic liquors. Diversions (playing at nine-pins, bowls, &c.) and other exercises (gardening, &c., &c.) are strongly recommended, more particularly before meals. The chest, back, and loins should be sponged with sedative water (Part II., 48) every morning and night for a few seconds, and rubbed afterwards for five minutes with camphor pomatum (Part II., 13). Persons liable to, or dreading an apoplectic fit, should, moreover, always carry with them a flask of sedative water, in case of accident.

Curative Treatment.

A thick bandage is placed over the eyebrows, and the head of the patient laid or held gently inclined backwards to prevent the sedative water entering the eyes. The head is then copiously bathed with sedative water; at the same time thick compresses saturated with that liquid are applied round the neck and the wrists, and the chest and back between the shoulders sponged with it. These applications are succeeded by vigorous frictions with camphor pomatum. The moment the patient gives signs of returning consciousness, and is able to stand or sit up, he is put into a sedative bath (Part II., 3), and after leaving this, the frictions are recommenced.

A glass of sugar-water mixed with a spoonful of sedative water is given the patient to drink. In all cases where there is no bursting of blood-vessels and consequent effusion of blood on the brain, the patient will, by this treatment, recover consciousness and motion in less than fifteen minutes. He must take afterwards a strong dose of aloes (Part II., 1), and castor oil in decoction of herbs (Part II., 16).

This treatment has proved hitherto uniformly successful, except in cases of effusion of blood on the brain, or where it had been resorted to too late. It has proved equally efficacious in the case of animals struck with apoplexy.

5. Appetite, False; Morbid Appetite; Inordinate Craving for Food, Bulimia; Immoderate or Morbid Thirst.

A morbid hunger (or thirst) may arise from an exceptional organization, or the occasional presence of large intestinal worms, more particularly the tape-worm. In the former case, the affection admits of no cure by medicinal agents or dietetic rules; for the treatment of a morbid appetite, occasioned by the presence of the tape-worm, or some other large intestinal worm, the reader is referred to the chapter on Intestinal Worms.

Percy, in his Memoirs, relates the case of a certain *Tarare* who used to devour incredible quantities of food, and actually dug up the dead, to satisfy the inordinate cravings of his fearful appetite. There are also on record some astonishing cases of immoderate thirst; thus, for instance, Count Ranzan (one of the courtiers of Louis the Fourteenth) was drowsy and incapable of physical or mental exertion, unless he had taken his ten or twelve bottles of champagne; half a dozen bottles had not the slightest effect upon him ("Mémoires de d'Artagnan," Cologne, 1700, vol. i., p. 66). The notorious French assassin, Lacenaire, used to drink his dozen bottles of wine per day without manifesting the slightest sign of intoxication; in his eating he was moderate. His inordinate thirst for wine led him, after the failure of his father, to those horrible pursuits which conducted him finally to the scaffold; how, indeed, could the modest proceeds of a literary avocation suffice to satisfy so formidable a craving for wine?

All people troubled with worms are extremely fond of wine and brandy; this may find its explanation, at least in some measure, in the circumstance that these alcoholic drinks are

possessed of vermifuge properties, and tend to allay the twinges in the stomach caused by the tape-worm or some other intestinal worms.

6. Asthma.

Causes.

Accumulation on the walls of the bronchi and base of the windpipe of mucosities and parasitical tissues, occasioned by the titillations of vermicular ascarides, or the inhalation of irritating dust particles; or, finally, by the abuse of mercurial medicines.

Symptoms.

Quick laborious breathing, violent fits of coughing, attended with compact, clotty, grayish, insipid, and nauseous expectoration. The face is puffed up, and often also the whole body; frequent chokings. Cold aggravates all the symptoms, since, by paralyzing the functions of the mucous membranes, it renders the products of the secretions of these membranes more concrete, and, consequently, less easy to detach and throw off.

Treatment.

Constant inhalation of camphor through the cigarette (Part II., 8). Applications morning and evening, for half an hour, of compresses saturated with camphorated spirits of wine (Part II., 9) round the neck, and also over the chest. Frequent frictions, for about fifteen minutes, with camphor pomatum (Part II., 13), preceded by sedative-water lotions (Part II., 48). Camphor (3 grains) three times a day; aloes (Part II., 1), every fourth day; a purging clyster (Part II., 22), from time to time; frequent gargling with salt water (Part II., 47); strengthening and aromatic diet (Part I., chapter iii.); frequent exercise at bowls, nine-pins, digging, &c.

Should the simple camphor cigarette not prove sufficiently prompt in its curative effects, it may be replaced by a quill, with a linen plug, saturated with camphorated spirits of wine, inserted in it; or a small piece of linen folded in eight, and moistened with a drop of camphorated spirits of wine, should be held between the lips, and the patient should strongly inhale the fumes.

Should this mode of treatment prove inefficacious, iodurated decoction of sarsaparilla (Part II., 40) must be had recourse to.

The asthma of horses (wheezing) and cattle is treated in a similar way. An ounce of aloes, every fourth day; turpentine and aloes clysters (Part II., 25), every second day; essence of turpentine (see p. 46), every now and then; frequent lotions with strong sedative water (Part II., 48) on the chanfrin (forehead) and neck.

7. Baldness, Falling off of the Hair—Alopecy.

Causes.

The immediate cause of the falling off of the hair is the disorganization of the bulb or root, occasioned by the parisitism of a cutaneous or sub-cutaneous insect, or by the abuse of strong liquors, or by some powerful moral impression, or by debauchery—causes which strike the hairy scalp with paralysis; in most cases, however, the falling off of the hair is clearly traceable to arsenical and mercurial treatments.

Treatment.

Bathe the head with sedative water three times a day, and rub afterwards camphor pomatum mixed with rum into the hairy scalp. The action of the sedative water, by restoring the capillary circulation in the nervous expansion which forms the bulb of the hair, imparts new life to this organ; besides, sedative water darkens the natural colour of the hair: it turns white hair flaxen; the notion that it reddens black hair is altogether erroneous.

8. Bites of the Viper, or other Venomous Animals; Stings of the Bee, Wasp, Spider, Scorpion.

Apply immediately on the wound sedative water (Part II., 48), or even pure ammonia (spirits of hartshorn) if you have it at hand; bathe the parts near the wound (and even the whole body, if the evil has already made progress) frequently with sedative water, until all suspicious symptoms have disappeared. Let the patient drink plenty of sugar-water alkalized with a few drops of sedative water; and also hot infusion of borage (Part II., 36), with a tea-spoonful of sedative water in it.

9. Blistered Skin.

Open the skin and dress the wound as prescribed in Part II., 13, *b*.

10. Blood-spitting, Hæmoptœ, Hæmoptysis.

Causes.

The hæmorrhage of the pulmonary surfaces proceeds from solutions of continuity (wounds) in the lungs, occasioned in some instances by the long protracted action of acid or alkaline vapour, or by the abuse of alcoholic liquors, arsenical and mercurial preparations, or by excesses; but in most cases by the introduction into the air passages of foreign bodies, animate or inanimate.

Symptoms.

If the blood spit up comes from the lungs, it is frothy, which is not the case when it comes from the stomach or the cavity of the mouth.

Treatment.

Inhalation of camphorated spirits of wine (Part II., 9) until the blood-spitting has ceased; hygienic regimen (Section I.); habitual use of the camphor cigarette.

If the discharge of blood from the lungs is owing to the action of acid vapour, or to the abuse of alcoholic liquors, or other excesses, apply large sedative-water compresses on the chest, and follow up by gentle frictions with camphor pomatum (Part II., 13). If the discharge proceeds from the action of alkaline and ammoniacal vapours, apply to the chest compresses saturated with camphorated alcohol and a few drops of vinegar; let the patient smell camphorated vinegar (Part II., 5).

11. Blue Sickness in Children.

Causes.

When this affection of new-born infants has not for its cause the continuance of the open communication between the two sides of the heart, as it exists in the fœtus, it proceeds from the so-called *comedons*, which appear in a great number of small black points or heads under the skin, and colour the latter intensely blue.

Symptoms.

In either case, the infant is threatened with apoplexy; its little jaws are firmly set together; it is seized with convulsions, which progressively increase in violence, and speedily terminate in death, unless the affection be effectively combated.

Treatment.

No matter whether the disease happens to be an affection of the heart or of the skin, hasten to put a neckerchief, saturated with camphorated spirits of wine (Part II., 9), round the infant's neck, and to place a compress wetted with the same liquid on the heart; sponge the body with the same liquid, and rub the back and chest of the infant gently with camphor pomatum (Part II., 13). As soon as the spasmodic fixture of the jaws gives way a little, pour some of the mother's milk into its mouth. Should the fever and convulsions make their appearance, sponge the little sufferer with sedative water (Part II., 48). Succory syrup (Part II., 52) every fourth day.

12. BOILS, LARGE PUSTULES, PHLEGMONS, FURUNCLES, MALIGNANT PUSTULES, CARBUNCLE, ANTHRAX.

Causes.

Introduction between the flesh and skin of an irritating foreign body, a bearded prickle, or a large-sized tick; sting of a tick, wasp, gnat, &c., that has become envenomed by contact with putrifying animal matter; introduction through a cut in the skin, or through the mucous membrane, of putrid animal matter, or of a mercurial or other poison; eating of the flesh of animals that have died of carbuncle.

There is every reason to believe that carbuncle in animals is caused mostly by the deplorable use of mercurial poisons, which shepherds are in the habit of employing, even in the mildest cutaneous disorders of animals under their care. The eating of the flesh of an animal that has been subjected to the mercurial treatment and suffered its consequences, cannot fail to act most injuriously and fatally on the human constitution.

Symptoms.

A hard, red, and inflamed bump, imposthume, or boil,

makes its appearance in some part or other of the skin; after a certain time, the imposthume bursts, and a mass of tissues infiltrated with blood lies exposed to the view; this mass is usually called the *core* of the boil. If the boil is of a *malignant* character (*malignant pustule*, *carbuncle*, *anthrax*), the core presents a blackish appearance. The symptomatic fever which accompanies the breaking out of a boil, increases in violence in proportion as the boil ripens; on the decomposition of the boil, the fever gives place to prostration and atony—in most instances the precursors of death. (See PLAGUE.)

The sting of a gnat or wasp may be followed by general erysipelas and swelling of the whole body, the same as would be the case from the bite of a viper.

Treatment.

The part wounded by the sting of an insect must at once be covered with a sedative-water compress (Part II., 48). Inflamed boils must be dressed with a thick layer of grated camphor (Part II., 7), and lint pledgets greased with camphor pomatum (Part II., 13) over it, the whole kept in place by means of a piece of strong sticking plaster of the requisite size (Part II., 54). On furuncles and malignant boils or pustules, apply a compress saturated with camphorated alcohol (Part II., 9), three times a day, for ten minutes each time, and cover the boil afterwards till the next dressing with a plaster of camphor cerate (Part II., 14), or simply with sticking plaster (Part II., 54). Bathe the parts round the wound with sedative water. Erysipelas and swelling are combated by copious lotions with sedative water, which are continued until the morbid symptoms have disappeared.

Should the boil or furuncle turn to decided carbuncle or anthrax, recourse must be had, besides the above dressing and lotions, to copious lotions with camphorated vinegar properly diluted with water (Part II., 15, *d*), and to incessant frictions with camphor pomatum; the patient must, moreover, take camphor internally, and also iodurated decoction of sarsaparilla (Part II., 40).

Against *carbuncle* in the tongue of cattle, we recommend frequent applications of camphorated alcohol to the affected part; internally, essence of turpentine in bran-water (page 46), and salt-water (Part II., 47).

13. Broken Bones.

Apply round the broken limb a number of bands previously dipped in a mixture of 100 parts of potato flour starch, and 80 parts of grated camphor.

On drying, these bands assume the shape of the included member, and serve thus to keep it straight and steady.

Bathe the neighbouring parts with camphorated spirits of wine (Part II., 9). Combat the fever with sedative water (Part II., 48).

14. Bruises, Contusions, Ecchymoses.

If you have to deal with a simple bruise, without excoriation, you need simply cover it with a compress dipped in camphorated spirits of wine (Part II., 9), and to moisten the compress from time to time with the same liquid: the local pain and the fever will disappear as if by magic.

If the contusion happens to be complicated with a wound or excoriation, the latter must be dressed in the usual way (see Wounds), and the application of camphorated alcohol compresses confined to the non-excoriated parts of the bruise. In some cases, it will be sufficient to cover the excoriated spots with a plaster of camphor cerate (Part II., 14), and to spread a camphorated alcohol compress on the other parts of the bruise. Combat the fever with sedative water (Part II., 48).

15. Burns.

We use this term here to designate the accidental disorganization of the superficial tissues, no matter whether caused by the action of fire or boiling liquids, or by that of alkalies, acids, or caustics.

Treatment.

If you have to deal with wounds made by the action of alkalies, caustics, or acids, hasten to wash them with a plentiful supply of water—acidulated with vinegar, if an alkali has been the destructive agent—or alkalized with ashes, if the wound is the result of the action of an acid. Dress and treat the wound afterwards in the same manner as a burn from fire or boiling liquids, viz. as follows: strew the wound with a layer of grated camphor (Part II., 7); place over this lint pledgets plentifully anointed with camphor pomatum (Part II., 13),

and cover these again with dry linen compresses; spread over these compresses several sheets of tracing paper, which serve to prevent the pomatum melting away, and running into the linen of the patient. Keep the dressing in place by means of a long bandage or roller. This dressing, which must be removed morning and night, will effectually exclude the air from the wound. In the case of burns in the face, the dressing is kept on best by means of a mask, with sufficiently large apertures for mouth, nose, and eyes. Bathe the uninjured parts round the wound with sedative water (Part II., 48).

This mode of dressing will be found to prove uniformly successful in all cases of burns; it preserves the patient from the frightful scars and disfigurement almost inseparable from the old method.

16. Cancer of the several Organs of the Body, but more particularly of the Breast.

Causes.

Impetus of abnormal development imparted to the tissues of a gland, lymphatic ganglion, nerve, or bone, in consequence of a blow or bruise, or the sting or gnawing of an insect, and which leads to the formation of a parasitical growth at the expense of the general nutrition of the organism.

Mercurial frictions do not cause a true cancer, but simply a chancrous ulcer which gnaws and consumes the organic tissues.

Symptoms.

Cancer assumes an infinite variety of forms, according to the seat which it occupies, and the nature of the tissue in which it commences. A hard tumour, about the size of a hazel-nut, is generally the first symptom. In many cases, a zigzag of dark blue veins, arising from a stoppage of the superficial circulation, is observed on the skin around the focus of the development of the cancer. After a time, the tumour begins to push out a species of roots or limbs towards the neighbouring parts, which become thus gradually a prey to the cancerous degeneration. The course of its progress is marked by very hard inflamed lumps, adherent to the skin; the neighbouring veins become thick, knotty, and of a blackish colour. In some cases, the cancer pushes upwards, forming round protuberances, which grow to the size of a large pear or a small melon. The internal substance of

a cancer consists of a number of large cerebriform nodules, encased in a scirrhous tissue, more or less abounding in blood-vessels. A cancer of the breast often will gradually invade one or both breasts, the axilla, arm-pit, shoulder, and the parts beneath the shoulder-blade.

It is by no means a rare occurrence that a practitioner will mistake, or rather pretend to mistake, a simple swelling of the glands or lymphatic ganglions, for a true cancer, and proceed to the extirpation of the tumour with the knife, securing thus an easily gained, though, to say the least of it, but ill-deserved reputation for talent, knowledge, and skill. The honest practitioner will always carefully guard against illusions or deceptions of this nature. A simple swelling of the glands does not require the knife; our mode of treatment suffices to disperse it. A swollen gland or ganglion is movable under the skin, and does not present those irregular lumps and hard red beads that characterize the development of cancer.

Treatment.

Apply to the incipient tumour compresses of sedative water (Part II., 48), and when the patient can no longer bear them, saline cataplasms (Part II., 19). If the tumour softens, continue these applications, the softening of the tumour being a sign that you have to deal simply with a glandular inflammation that will terminate either in dispersion or in suppuration. But if, on the contrary, the ammoniacal and saline applications fail to produce a salutary change, and the tumour remains hard, and shows a tendency to invade the neighbouring parts, a bold incision with the bistoury must be had recourse to without delay, and a sufficient quantity of *Vienna caustic* (a mixture of equal parts of powdered quicklime and caustic potass) introduced into the wound, in order to disorganize the cancerous tissue to the root. The patient must observe the hygienic regimen (Section I.), and drink the iodurated decoction of madder (Part II., 39); the quantity of iodide of potassium taken in the decoction should amount to about 15 grains a day. The decoction of madder should be continued as long as the patient can bear it, but the iodide of potassium may be omitted after a time. By this mode of treatment, an incipient cancer may be stifled in the bud. Should the first cauterization prove insufficient, the operation must be repeated until the cancerous growth is thoroughly eradicated.

In cases where the cancerous degeneration has gained already a more extensive field, extirpation of the diseased mass with the knife is the only effectual remedy left; the operating surgeon ought to remove as much of the affected tissues as can possibly be effected. The operation completed, the camphor dressing of our method (see WOUNDS) must be applied without loss of time. Should the wound after a reasonable time still refuse to close, this is to be looked upon as a certain sign that the cancer is not thoroughly eradicated, and will break out again, if not combated at once by energetic measures. In cases of this kind, the Vienna caustic must be boldly applied over the whole surface of the wound, to destroy the lingering traces of cancerous degeneration. A perfect cicatrization of the wound is the most satisfactory sign of the successful cure of a cancer.

But where a cancer has pushed its roots downwards into the deeper-seated tissues, the operation will only remove the superficial or protuberant portions, and leave the germ intact, and the disease will, after a time, break forth again with increased virulence. For desperate cases of this kind, the remedy remains still to be discovered.[*] If the cancer has its seat in a part admitting of constant immersion in camphorated spirits of wine (Part II., 9), a cure may be effected by that means. A little girl, aged twelve, who was suffering from a cancerous affection of the metatarsus that had made already some progress, was cured by keeping the extremity of the foot constantly enveloped with compresses imbibed with camphorated alcohol, protected by an oilskin sock. The same gratifying result was obtained in the case of a child, five years old, whose hand was affected with a cancer.

Cancerous, or rather *chancrous*, ulcers of mercurial origin, and which may be known by their granular surface and circumferential growth, are lightly sponged three times a day with a solution of 30 grains of sulphate of zinc in a glass of water; a few minutes after a couple of galvanic plates (Part II., 27) are applied, and kept on for half an hour; these are succeeded by a compress copiously wetted with camphorated alcohol; after about ten minutes the compress is removed and replaced by a plaster of camphor cerate (Part II., 14), which is kept on till the next dressing. The patient must drink iodurated decoction of sarsaparilla (Part II., 40).

17. Caries of the Bones.

Causes.

Caries of the bones, or transformation of the bony substance into pus, may proceed from denudation of the bones, and exposition of the denuded surface to the contact of the air; or from the protracted action of a mercurial or arsenical treatment; or finally, from the erosion or gnawing of the bone by the larva of an insect, more particularly that of the fly.

Symptoms.

If the caries is the result of the erosion of a bone by the larva of an insect, the patient suffers most intolerable pain in the affected bone; he feels shootings in it, and sometimes a sensation as if a gimlet were being screwed in.

Where the caries is the result of a denudation of the bone, or of mercurial or arsenical action, the disorganization of the bony tissue proceeds sometimes with frightful rapidity, but the patient feels no pain in the affected bone, except such as is caused in it by friction or concussion.

Treatment.

Hygienic regimen (Section I.). Iodurated decoction of madder (Part II., 39). Complete camphor dressing (page 88), preceded each time by half an hour's application of galvanic plates (Part II., 27) on the affected surfaces; injections of lukewarm tar-water (Part II., 53, *b*), and afterwards of camphorated oil (Part II., 10) into the fistules that have formed in the affected bone; add from time to time to the tar-water injection sulphate of zinc, about 30 grains per glass. Applications of sedative water (Part II., 48) above and below the wound; and, whenever febrile symptoms make their appearance, also round the neck and the wrists. Wet the bandages of the dressing often with camphorated spirits of wine (Part II., 9), and even sponge the wound with the same agent, if you have reason to suspect the action of mercury; the application of camphorated alcohol to the wound tends to detach the disorganized tissues.

18. Catalepsy.

Catalepsy is a sudden deprivation of sense and motion, which retains the person affected in the same posture that he happens to be in when the fit comes on; the eyes remain

open, but the patient has for the time lost the faculty of sight as well as all other senses.

The treatment of catalepsy is the same as that of apoplexy and epilepsy (see APOPLEXY and CONVULSIONS).

19. CATARRH; PULMONARY CATARRH; BRONCHITIS; COLD; COUGH.—INFLUENZA.—HOOPING-COUGH.

A *catarrh*, or, to call it by its common name, a *cold*, may be caught in every season; *influenza* is a disease of an epidemic character, which prefers cold and foggy weather for its attacks.

Causes.

A *catarrh* is the result of the titillation of the internal surfaces of the larynx, windpipe, and bronchi, by irritating dust particles, acrid humours, &c., or by vermicular ascarides. *Influenza* is the effect of an invasion of the *fauces* and the mucous membrane of the larynx, by a fiercer and more greedy set of parasites, which, by the infiltration of their virus, cause swelling of the lymphatic glands and torpidness of the muscles of the neck, back, and chest.

The influenza caused by the thick fogs of manufacturing towns situated in damp localities is generally of a more obstinate character than in other localities. The hooping-cough in children is produced by the same causes that give rise to the catarrh in old people; the difference in the respective symptoms of the two affections proceeds simply from the difference in the respective ages and organs of the patients.

Effects.

Respiration being the main-spring of all the other functions of the organism, the slightest trouble or impediment in the respiratory apparatus will create a feeling of indisposition throughout the frame. A cold neglected or improperly treated may lead to pulmonary consumption. The influenza is a very serious disease, and may, if improperly treated, cause a frightful mortality in a population epidemically affected by it.

Treatment.

Nearly all diseases of the chest will, in their incipient stage, give way to the use of the camphor cigarette (Part II., 8). Compresses, or a cravat, soaked alternately with camphorated alcohol (Part II., 9) and sedative water (Part II., 48), will, in most cases, suffice to stop the fits of coughing.

Should the spasms of the chest continue, cover the neck and chest with a large compress dipped in camphorated spirits of wine, and make afterwards frictions with camphor pomatum (Part II., 13) on the back and loins.

In obstinate cases of catarrh, or in influenza, the patient must gargle his throat, at least three times a day, with salt water (Part II., 47), and after the gargle chew a bit of camphor, and then wash it down with a mouthful of tar-water (Part II., 53, *a*), or decoction of hops (Part II., 33), or infusion of borage (Part II., 36), or simple decoction of sarsaparilla (Part II., 40, omitting the iodide of potassium). Frictions with camphor pomatum, at least twice a day, night and morning; afterwards lotions with sedative water. Aloes and worm clysters (Part II., 24) every four days, and calomel in crystals (Part II., 6) every fortnight. Chew the peel of the pomegranate fruit (Part II., 45) three times a day, and whenever you feel a fit of coughing coming on.

The root of the pomegranate (Part II., 44) and the peel of the fruit cure, as if by magic, the catarrhs and the defluxions from the nose which people are apt to catch in the first days of the rigorous season. A few instants' chewing of a bit of the root or peel of the fruit suffices to drive down to the stomach the cause of the cough and the defluxion; and, the cause once removed, the effects will speedily disappear.

In *hooping-cough*, give to the little patient one grain of aloes (Part II., 1) every other day, in a little preserves; or, if the infant is of very tender age, or refuses to take the aloes, a spoonful of succory syrup (Part II., 52). Put some salt water (Part II., 47) from time to time into the little patient's mouth, and cover the neck with a cravat saturated with camphorated alcohol, taking care to carry the child about that it may not inhale too much of the alcoholic vapour. At every fit of coughing bathe the chest and the back between the shoulders with sedative water, and rub afterwards with camphor pomatum. Give the child one grain of calomel (Part II., 6), and repeat the same dose five days after, if the hooping-cough still persists. Put a camphor cigarette from time to time in the little sufferer's mouth, taking care to hold the lips closed round the quill in such a manner as to confine the inhalation of the air to the passage through the tube.

20. Chapped Hands, Cracked Lips, etc.

Keep the parts affected constantly covered with a camphor

cerate plaster (Part II., 14); see also CHILBLAINS, and SKIN, DISEASES OF THE.

21. CHEST, DISEASES OF THE.—INFLAMMATION OF THE CHEST, INFLAMMATION OF THE LUNGS, PERIPNEUMONY; STITCH IN THE SIDE, PLEURISY; NEGLECTED COLDS; PHTHISIS, PULMONARY CONSUMPTION.

Causes.

The immediate cause of an inflammation of the chest is congestion of blood in the lungs, occasioned by the action of cold, or by a violent fever, or by the inhalation of acid or acrid vapour, &c.

The tickling of the internal surfaces of the larynx, windpipe, and bronchi by irritating dust particles, acrid humours, &c., or by vermicular ascarides, produces *catarrh*, or *asthma* (these affections have been treated of elsewhere; see ASTHMA and CATARRH).

Irritation of the external surface of the lobes of the lungs which is in contact with the *pleura* (membrane lining the inside of the breast) leads to transudation and collection of serosities in the thoracic cavity, which causes, in the first place, a *stitch in the side*, changing, after a time, to a confirmed *pleurisy*, or even to *empyema* (collection of purulent matter in the cavity of the chest), or to *emphysema* (collection of gas in the thoracic cavity).

Continual irritation of the internal surface of the lungs by a living cause, or by mercurial or arsenical agents, leads to the formation of tubercles, and disorganization of the pulmonary tissue. This affection, which is known by the name of *phthisis* or *pulmonary consumption*, is of a most formidable nature, and may be rendered incurable by the slightest accident.

The diseases of the chest are caused much more frequently than is generally believed by the tape-worm. This formidable parasite may exist in the organism unsuspected for a time. We have had occasion to observe that the tape-worm will often insinuate its head as high as the *fauces*, and even, passing behind the *velum* of the palate, into the chambers of the nose; and that the visits of this unwelcome guest to these parts occasion an obstinate cough and violent catarrh, attended with copious defluxions of mucosities. The chewing of a bit of pomegranate-root, or of the peel of the fruit, dissipates the phenomena as if by magic. Phthisis, in large towns,

is unfortunately but too often the result of mercurial infection.

Symptoms.

Difficulty of breathing and oppression of the chest, even to choking, are among the most prominent symptoms of *peripneumony*, or inflammation of the lungs. In *pleurisy* the patient feels a most acute pain in the affected side, particularly on drawing his breath. *Neglected colds* weary and exhaust the patient by frequent and continued fits of coughing. The tubercles in *phthisis* obstruct the capillaries and thus impede the oxygenation of the blood; the softening and suppuration of the tubercles leads to disorganization and deperdition of the surrounding pulmonary tissue, and to the formation of cavities or *caverns* in the substance of the lungs. The patient is sad and languid, but he suffers no acute pain. The expectoration is at first white, frothy, and nauseous; after a time it exhibits a yellowish, and finally a grass-green colour. Looseness and colliquative sweats weaken and exhaust the patient, who sinks at last into the tomb, quietly, and almost without regret.

Treatment.

In inflammation of the lungs apply on the chest and between the shoulders a saline cataplasm, composed of linseed meal and salt, and plentifully wetted with sedative water (Part II., 19); after ten minutes or a quarter of an hour take off the cataplasm, wipe the skin, and rub for about twenty minutes with camphor pomatum (Part II., 13). After some time apply a fresh saline cataplasm, let it lie on for from ten to fifteen minutes, use friction again with camphor pomatum, and repeat the same series of operations until the inflammatory symptoms abate in violence. Apply from time to time round the neck a cravat saturated with sedative water (Part II., 48); aloes (Part II., 1) every other day, and purging clysters (Part II., 22); castor oil (Part II., 16); camphor (about the size of a pea) three times a day.

If the expectoration assumes a bad or suspicious appearance, and comes away with difficulty, recourse must be had to camphorated alcohol compresses (Part II., 9) applied round the neck and over the chest: these compresses must be covered with a stiffly-starched muslin handkerchief (see p. 51) to protect the patient from the action of the alcoholic vapours; besides which, some paper should be burnt to purify the air,

and a red-hot shovel, with some vinegar thrown on it, should be carried about in the room from time to time. Bathe the patient's back and belly with camphorated vinegar (Part II., 15), and apply friction afterwards for twenty minutes with camphor pomatum (Part II., 13).

Should the action of the alcohol increase the fever, recourse may be had to a sedative-water lotion, and to a dose of aloes; a glass of sugar-water with a few drops (or even a tea-spoonful) of sedative water in it, may also be administered.

If the patient has no inclination for solid food, his strength must be sustained by giving him every hour a few spoonfuls of aromatic broth, and a spoonful of good old wine. An emollient camphor clyster (Part II., 21) with an additional pinch of salt in it, may also be administered from time to time.

In *pleurisy*, apply on the affected side a compress plentifully wetted with camphorated spirits of wine, and rub the part for 20 minutes with camphor pomatum, every time you change the compress. Camphor cigarette (Part II., 8). Aloes (Part II., 1).

Our hygienic regimen (Section I.) and the constant use of the camphor cigarette will be found excellent preventatives against the invasion of *tubercular phthisis*. In the incipient stage of that formidable disease we recommend applications, round the neck and on the chest, of compresses plentifully wetted with camphorated alcohol, and from time to time saline cataplasms (Part II., 19), wetted with camphorated vinegar, sufficiently diluted with water (Part II., 15). Bathe the chest and the back between the shoulders often with sedative water, and rub the parts afterwards with camphor pomatum. Let the patient take a piece of camphor about the size of a pea three times a day, and wash it down with a mouthful of decoction of hops (Part II., 33) or tar-water (Part II., 53, *a*). Constant use of the cigarette; if the lungs are too weak for the cigarette, the patient is recommended to chew a piece of camphor, and swallow the saliva; or to keep habitually in the mouth a bit of angelica root, or a drop of resin from the fir or pine. The patient ought also to chew from time to time a bit of peel of the pomegranate. The patient should eat little at a time, but often. Worm clysters (Part II., 24) every day. Walking or sitting in the sunshine.

The same treatment is equally recommended in the more advanced stages of the disease; and, in addition, the chest and back between the shoulders must be bathed frequently with camphorated vinegar (Part II., 15), diluted with twenty times

its volume of water, and compresses of camphorated alcohol applied both on the chest and the back. The camphorated alcohol may, indeed, bring on fits of coughing which may occasion laccrations of the pulmonary tissue. Serious though such a result undoubtedly would be, yet it should not make us hesitate to apply the camphorated alcohol, if by such application we may hope to dry up the source of the production of the tubercular matter, which, if not effectually checked, will gradually spread its infection over the whole pulmonary tissue.

If a mercurial origin of the affection is suspected, apply three times a day galvanic plates (Part II., 27) on the chest and between the shoulders, having previously bathed the parts with sedative water. Iodurated decoction of sarsaparilla (Part II., 40). Blood baths (Part II., 5).

The introduction of the practice of bathing the back between the shoulders with sedative water, and rubbing it afterwards with camphor pomatum, has disclosed a curious fact bearing on the diagnostic of pectoral affections; viz. the spots corresponding to the seat of the inflammation, or of the tubercular deposit, turn red, more especially on the application of the sedative water. These red spots point out to the eye more clearly and distinctly than percussion or auscultation could to the ear, the exact seat of the internal ravages of the disease. When the affection is perfectly cured, these spots cease to make their appearance, notwithstanding the continuance of sedative-water lotions and camphor pomatum frictions.

22. Chilblains.

Causes.

Afflux and congestion of blood in the capillaries of the cutaneous tissues, occasioned by a sudden transition from heat to a violent cold, or *vice versâ*.

Symptoms.

Chilblains affect principally the extremities: the feet, hands, tip of the nose, and the tip of the ear. Redness and swelling of the affected part mark the incipient stage of a chilblain; after a time the tumour begins to crack in various directions, and the patient suffers a real martyrdom of itching, more particularly whenever he chances to expose the part affected to the influence of heat.

Treatment.

The frozen part or limb is immersed in a bath of equal parts of lukewarm water and sedative water (Part II., 48); after ten minutes, it is taken out of the bath, wiped, and then enveloped in linen compresses well anointed with camphor pomatum (Part II., 13); the hand or foot thus dressed is inserted in a glove or sock, made of a pig's bladder or of oil-silk. If this treatment is resorted to in time, the chilblain will, in most cases, speedily disappear; should it persist, however, frequent lotions with camphorated alcohol (Part II., 9) must be had recourse to.. If the chilblain exhibits already cracks and chaps, the bath must be dispensed with, and camphor cerate (Part II., 14) applied on the cracks, the other parts of the chilblain which are simply swollen and red being covered with bands saturated with sedative water.

23. Childbed, Childbirth, Pregnancy.

Pregnant women should strictly conform to the hygienic regimen of our method (Section I.), and more particularly never omit the frictions with camphor pomatum (Part II., 13). Injection of tar-water (Part II., 53, *b*) into the parts every morning; and the introduction of a little camphor pomatum, or of a camphor bougie (Part II., 12), into the passage every evening. At the slightest symptom of fever, sedative-water compresses (Part II., 48) round the neck and the wrists; lotions with sedative water on the back; aloes every eight or ten days; emollient camphor clysters very often. By a strict attention to these rules and prescriptions, pregnant women may secure an easy gestation and safe delivery.

Our hygienic regimen, and frequent frictions with camphor pomatum, will preserve lying-in women from attacks of *peritonitis*, *puerperal* or child-bed fever, &c. At the slightest appearance of febrile symptoms, lotions, alternately with sedative water and camphorated alcohol (Part II., 9), particularly on the belly; compresses greased with camphor pomatum, on the lower part of the abdomen.

Every mother ought to suckle her child; should a mother be absolutely unable, however, from want of milk, or some other cause, to fulfil this most sacred natural duty, it will be advisable for her to take a purgative clyster (Part II., 22) from time to time, and to drink alternately, infusion of borage and dog's grass, and tar-water (Part II., 53, *a*).

24. Cholera Morbus, Asiatic Cholera; Yellow Fever, and other Diseases of an Analagous Character.

Causes.

Invasion of the alimentary canal, and more particularly of the small intestines, by hordes of minute larvæ of insects, belonging most probably to the genus *fly*.

Symptoms.

The walls of the intestines being disorganized by the frightful parasitism of these larvæ, the blood thickens and coagulates; the tissues dry and shrivel up; the stomach is forcibly contracted, and vomiting ensues, of yellow, green, or black matter; the colon, suffering the same contraction, voids dejections of a bad nature; the limbs shake convulsively; the body blackens, and shrivels almost under the eyes of the lookers-on.

Preventive Treatment.

Hygienic regimen (Section I.); dishes flavoured with garlic, pepper, ginger, &c. (see Part I., chapter iii.); frequent lotions with camphorated alcohol (Part II., 9), or with eau de Cologne, and frictions with camphor pomatum (Part II., 13); a small glass of aromatic liqueur (page 18) every morning. Chew a bit of pomegranate root morning and evening, and drink salt water (Part II., 47) after.

Curative Treatment.

When the first symptoms of the invasion of the disease make their appearance, have a vermifuge cataplasm (Part II., 18) prepared, sufficiently large to cover the whole belly; whilst this is preparing, rub the patient's belly vigorously with camphorated alcohol (Part II., 9); renew the cataplasm every quarter of an hour. Give the patient immediately a dose of aloes and vegetable broth (Part II., 1 and 2), and a vermifuge clyster (Part II., 24). Three grains of camphor every hour, washed down alternately with a mouthful of tar-water (Part II., 53, *a*) and salt water (Part II., 47). Applications of sedative water on the head, and round the neck and wrists; lotions with the same, on the back, from the neck down to the anus, followed by persevering friction with camphor pomatum. Frequent gargling with salt water (Part II., 47). A few hours after the commencement of this treatment, give the patient fifteen grains of crystalline calomel

crushed, but not pulverised (Part II., 6), and half an hour after, castor oil (Part II., 16). When the crisis is past, a sedative bath (Part II., 3), and on quitting it, frictions with camphor pomatum. Spiced dishes (Part I., chapter iii.) the moment the patient feels an appetite.

This treatment has proved eminently successful wherever it has been resorted to in time; and even in the more advanced stages of the disease, it has snatched full 75 per cent. from the jaws of death.

25. Cold in the Head, Coryza, Stuffed Nose, Snuffles.

Causes.

Continued action of severe cold on the mucous membrane of the nose, or introduction into the nasal chambers of acrid vapours or irritating dust particles, or of vermicular ascarides, which creep up behind the *velum* of the palate, or of the larvæ of flies or other insects.

Symptoms.

The mucous membranes, decomposed by the chemical action of the cold air or acrid vapour, or tickled by the ascarides, or gnawed by the larvæ, exude a sharp matter, presenting the physical character of the expectoration in pulmonary catarrh. This troublesome defluxion speedily produces a sensation of heaviness in the head; it must not be confounded with the running of water from the nose, resulting from the condensation of the nasal exhalation by cold air.

Treatment.

A defluxion from the nose produced by the presence of ascarides or larvæ of insects in the nasal chambers, gives way speedily to a few pinches of grated camphor used as snuff. In all other cases of coryza, the patient must have recourse, besides, to gargles and injections into the nostrils, of salt water (Part II., 47) or tar-water (Part II., 53, *b*), and inhalations (through the nose) of camphorated spirits of wine (Part II., 9). Compresses imbibed with camphorated alcohol, and frictions with camphor pomatum (Part II., 13), are applied on the bridge of the nose. Hygienic regimen (Section I.).

Certain defluxions from the nose, of a most obstinate cha-

racter, proceeding from mercurial treatment, or from the habitual inhalation of mercurial preparations, and characterised by a peculiar appearance and smell of the discharge, must be combated, besides the above treatment, by iodurated decoction of sarsaparilla (Part II., 40).

26. Colic, Gripes.

Causes.

Colics are caused by the ingestion of a poisonous metallic substance; or by the formation of stercoraceous concretions in the intestines, resulting from the ingestion of alimentary substances abounding in tartaric acid, such as green fruits; or by an intussusception, or involving one part of the gut within another; or finally—and this is most frequently the case—by the invasion of the large intestines by *teres* and *ascarides;* the *teres*, or long round worms will, in some instances, actually cause intussusception.

Symptoms.

A common colic is attended with rumbling, burning, and pricking in the bowels, in the upper transverse region of the abdomen; these symptoms are often accompanied by convulsions and dysentery.

In colics caused by the formation of stercoraceous concretions in the intestines, or arising from intussusception (*Iliac passion—miserere mei*), the patient suffers the most excruciating pain, speedily followed by vomiting of *fæces*, or excrements.

Treatment.

In cases of *common colic*, a piece of camphor the size of a pea, three times a day, with infusion of borage (Part II., 36); aloes (Part II., 1), and worm clysters (Part II., 24); alternate application of vermifuge cataplasms (Part II., 18), and camphorated alcohol compresses (Part II., 9) on the belly; continual frictions with camphor pomatum (Part II., 13) on the back and loins: should the colic persist, calomel (Part II., 6). To children who refuse to take camphor and aloes, you may give one or two spoonfuls of succory syrup (Part II., 52), and an emollient camphor clyster (Part II., 21). Vermifuge cataplasm as above, salt water (Part II., 47) to drink; peel of pomegranate fruit (Part II., 45).

In many cases of common colic, the simple application of

a camphorated alcohol compress on the belly, suffices to dissipate all the symptoms.

In the *iliac passion* or *miserere*, the patient must take castor oil (Part II., 16) and superpurging clysters (Part II., 23); emollient cataplasm (Part II., 17), worked up with castor oil, on the belly; general lotions with sedative water (Part II., 48), and frictions with camphor pomatum (Part II., 13). In cases where the iliac passion proceeds from the formation of stercoraceous concretions, arising from the ingestion of green fruits, the patient should take a weak solution of bicarbonate of potass, or a spoonful of sedative water, in a glass of water, and drink a glass of olive oil after. Sedative-water clyster (one large spoonful of sedative water to a quart of water), and afterwards a clyster of pure oil.

For the treatment of lead colic (painters or plumbers' colic), see POISONS, 3.

If there is ground to suppose that the colic proceeds from the presence of the tape-worm, treat the case as advised in the article on WORMS.

For another kind of colic, called the *nephritic*, and which arises from obstruction of the ureters by gravel or fragments of stone, frequent frictions with camphorated oil (Part II., 10), alternating with sedative-water lotions (Part II., 48), must be made on the loins and belly. Previously to each friction, a saline cataplasm (Part II., 19) is to be applied on the loins. Injections with camphorated oil, and with tar-water (Part II., 53, *b*), through the canal of the urethra. The patient should drink plenty of infusion of borage (Part II., 36), mixed with a little tar-water (Part II., 53, *a*). Emollient camphor clysters (Part II., 21).

27. CONVULSIONS; EPILEPSY; ST. VITUS'S DANCE, CHOREA.

Causes.

Action of poisons, foreign bodies or worms, more especially intestinal worms, on a nervous centre. *Teres* and the tape-worm have been known to occasion most frightful convulsions, exhibiting all the signs of an epileptic fit.

Treatment.

The safest way is to have recourse, in all affections of a convulsive nature, to the method of treatment indicated against intestinal worms (see WORMS). Besides this, the head must be bathed with sedative water; general lotions

with sedative water (Part II., 48), succeeded by frictions with camphor pomatum (Part II., 13), at least three times a day, but more particularly while the fit is on. The patient should take a sedative alkaline-ferruginous bath (Part II., 3) every day.

28. Corns, Bunions; Accidental (Non-congenital) Warts.

Causes.

Corns and bunions are produced by the pressure and friction of tight shoes or boots on the nervous *papillæ.*

Warts arise from some unknown cause of abnormal development; there are strong grounds for believing that they are contagious, and may be communicated by contact.

Treatment.

Cover the corn or bunion with a small camphor cerate plaster (Part II., 14), and put over this a thin piece of india-rubber; wear easy shoes or boots. Take a foot-bath (Part II., 4, *b*) at least once a day.

Warts are touched three times a day with a glass rod dipped in liquor of ammonia (spirits of hartshorn); after ten minutes the affected hand is plunged into a bath of two-thirds of water (hot or cold), and one-third of sedative water. After this the hand is anointed with camphor pomatum (Part II., 13), which is left on at least a quarter of an hour, or, if it can be kept on the whole night, so much the better.

29. Costiveness; Constipation.

Causes.

Costiveness may arise either from some obstacle or impediment to the easy defluxion of the bile to the intestines, occasioned mostly by a sedentary mode of life; or from the abuse of alcoholic liquors; or from the invasion of the stomach and large intestine by worms, which, fastening on the intestinal surfaces, absorb the animal juices, to the great detriment of the digestive process; or, finally, also, from too much exercise, and consequent over-abundant perspiration.

Symptoms.

Indifferent appetite; infrequency and difficulty of the stools; the movements of the body lose their accustomed suppleness; the head feels heavy; there is a dancing before

the eyes, and singing in the ears; indolence of the mind, and slowness of conception.

Treatment.

When constipation is not caused by worms, it is generally the result of a sedentary mode of life, and will speedily give way to exercise, and to a dose of aloes every four days (Part II., 1). The exercise most to be recommended for sedentary people is an hour's diversion at nine-pins, bowls, cricket, hand-ball, golff, &c.; or an hour's digging with the spade. After the exercise, lotions with sedative water (Part II., 48), on the back and loins, for about a minute, followed by frictions with camphor pomatum (Part II., 13), with general shampooing of the limbs for twenty minutes. Hygienic regimen (Section I.).

In cases of obstinate costiveness, castor oil (Part II., 16), superpurging clysters (Part II., 23), and emollient cataplasms (Part II., 17), worked up with castor oil.

When the *fæces* have accumulated in the rectum, owing to the formation in that part of a species of stercoraceous concretion, as is, indeed, often the case with children, from eating green fruits to excess, the disintegration of the molecules of the concretion may be attempted by means of the index anointed with oil, and introduced into the anus.

30. Cramp in the Limbs; Spasms.

Cramps are mostly occasioned by the presence of worms in the intestinal canal, which, attaching themselves to a nervous centre, determine in the members dependent thereon, muscular contractions, attended with a peculiar rather acute pain. Cramps may result also from the action of mercurial remedies, but more particularly from that of arsenic taken internally.

Treatment.

Lotions with sedative water (Part II., 48) will always prove instantly efficacious. Some people need simply put their bare feet on the ground to dissipate the cramp. Hygienic regimen.

31. Croup in Children; Chock or Stuffing, Rising of the Lights.

Causes.

Invasion of the larynx and windpipe by a parasitical

animal, perhaps of a different species from the vermicular ascarides.

Effects.

The tickling and suction of this parasite determine, on the internal surface of the windpipe, an indefinite development of parasitical tissues, which, by getting packed closer and closer, form at last a species of stopper or plug, obstructing the windpipe and interrupting thus the passage of the air to the lungs. If time is given for the full development of this frightful effect, and proper remedial measures are not promptly resorted to, the child dies suffocated. This dreadful disorder is characterized by a peculiar kind of croaking noise attending the breathing, and which is occasioned by the progressive contraction of the windpipe and larynx.

Treatment.

As soon as the first symptoms make their appearance, make the child take a strong dose of ipecacuanha syrup (Part II., 51), and place the cigarette (Part II., 8) between its lips, or hold a large piece of camphor close to the mouth; put round the child's neck a cravat saturated alternately with sedative water (Part II., 48) and camphorated spirits of wine (Part II., 9). This treatment will, in most cases, suffice to arrest the progress of the disease, and to impart to it the character of a simple catarrhal affection. When this is the case, a few doses of one grain of calomel, in powder (once or twice in two days), and salt water, will complete the cure.

Should the disease have arrived already at an advanced stage, or should the above preparatory treatment fail to arrest its march, one grain of tartar emetic must be given without loss of time to effect the expulsion of the *croupal* stopper or plug from the windpipe, by the effort made in vomiting.

32. Diarrhœa, Looseness; Dysentery.

Causes.

A *diarrhœa* or *looseness* proceeds from the invasion of the channels of the bile by worms, which, by obstructing the secretion and defluxion of the bile, oppose the proper alkalization of the acid chyme or alimentary paste passing from the stomach into the small intestines.

A *dysentery* may proceed from poisoning (accidental, criminal, or medical); or from the invasion of the large intestine

by larvæ, which lacerate the intestinal walls; or from the formation of calcareous concretions precipitated by the tartaric acid of green fruits, and the asperities of which wound and tear the intestinal walls, and give thus rise to hæmorrhages or flows of blood.

Symptoms.

In *diarrhœa* the stools are liquid, and in general yellowish and slimy. In *dysentery* the stools are more or less mixed or streaked with blood. It may be readily conceived that over-frequent and over-copious stools of a slimy or sanguineous nature cannot fail to influence most seriously and unfavourably the other functions of the organism.

Treatment.

Hygienic regimen (Section I.). Worm clysters (Part II., 21): application on the belly of large compresses, imbibed alternately with sedative water (Part II., 48) and camphorated alcohol (Part II., 9), and succeeded by vermifuge cataplasms (Part II., 18). Let the patient chew, three times a day, first about the size of a pea of camphor, and afterwards about the size of a shilling of pomegranate peel (Part II., 45), and wash it down with a little salt water (Part II., 47). See also WORMS.

In cases of *dysentery*, occasioned by the immoderate use of green fruits, about 30 grains of bicarbonate of potass must be added to the worm clyster, and the same quantity must also be taken in a quart of infusion of borage (Part II., 36); afterwards castor oil (Part II., 16) and superpurging clysters (Part II., 23). Introduction into the anus of camphor bougies (Part II., 12). See also COLIC and STONE.

In the diarrhœa of cattle, essence of turpentine in bran-water (p. 46), and worm clyster for cattle (Part II., 25), aloes (Part II., 1); lotions alternately with camphorated brandy (Part II., 9) and sedative water.

33. DROPSY; ASCITES.

Causes.

Invasion of the abdominal cavity, viscera, and glands, by hydatides or other worms, which, fastening on the mesentery or on the walls of the peritoneum, cause the exudation and collection of watery humour in the belly. Dropsy may also arise from the action of mercurial agents.

Effects and Symptoms.

Compression of the intestines by the watery collection, and obstruction of the digestive functions; suppression, to a greater or less extent, of the secretion and defluxion of the bile; compression of the descendent aorta, and of the *vena cava;* impeded circulation of the blood. If the disease is not timely checked, it will give rise to the most serious and fatal complications: jaundice, emaciation, swelling of the lower extremities, marasmus.

Treatment.

Hygienic regimen (Section I.); spiced food (Part I., chapter iii.); generous wines and aromatic elixirs or liqueurs (page 18); tar-water (Part II., 53, *a*), and iodurated decoction of madder (Part II., 39); camphor three times a day; aloes (Part II., 1) every third day; worm clysters (Part II., 24) frequently; application of sedative-water compresses (Part II., 48), constantly renewed, on the belly and loins, until an eruption makes its appearance, when they are replaced by plasters of camphor cerate (Part II., 14) of sufficient size to cover the abdomen and loins; general sedative-water lotions all over the body, and general frictions with camphor pomatum (Part II., 13); application of galvanic plates on the belly and loins, three times a day, for half an hour each time.

This treatment will be found efficacious in all cases of *ascites* that are not complicated with *general œdema* or *anasarca* (see Œdema).

34. Dropsy of the Articulations, or Joints; Synovial Dropsy; Hydarthrosis.

Accumulation of the synovial liquid in the box and between the ligaments of a joint, and more particularly of the knee-joint, which impedes the articular motion to a greater or less degree. The swelling is painless.

Treatment.

Apply on the affected joint, alternately, saline cataplasms (Part II., 19) and compresses imbibed with camphorated spirits of wine (Part II., 9). Apply also galvanic plates (Part II., 27), and cover the part afterwards with a camphor cerate plaster (Part II., 14). Iodurated decoction of madder (Part II., 39); blood baths (Part II., 5). Hygienic regimen (Section I.).

35. Dropsy of the Chest, Hydrothorax.

Same treatment as for Pleurisy. See Chest, Diseases of the.

36. Dropsy of the Spinal Marrow, Hydrorachis.

This serious disorder must be combated by almost constant applications of galvanic plates (Part II., 27) on the dorsal column, and lotions, alternately with camphorated spirits of wine (Part II., 9) and sedative water (Part II., 48), followed by frictions with camphor pomatum (Part II., 13); iodurated decoction of sarsaparilla (Part II., 40); clysters of linseed-meal decoction, with 15 grains of sulphate of zinc; blood baths (Part II., 5). Hygienic regimen (Section I.).

37. Dropsy of the Testicles, Hydrocele; Dropsy of the Scrotum.

Bathe the scrotum in the ferruginous and saline tar-water bath (Part II., 53, *c*); local applications of compresses imbibed with sedative water (Part II., 48), until an eruption makes its appearance, when the part is to be covered with a camphor cerate plaster (Part II., 14). Application of galvanism (Part II., 27) in the bath. Hygienic regimen. Tar-water (Part II., 53, *a*). Infusion of borage (Part II., 36) every evening. Iodurated decoction of sarsaparilla (Part II., 40). If the affection persists, the scrotum must be punctured, and camphorated oil (Part II., 10) injected into the sac twice a day. The usual dressing is then applied, and the parts are worn for a time immersed in camphor pomatum (Part II., 13) in an oil-silk bag (page 89).

38. Ears, diseases of the—Earache, Singing in the Ears, Hardness of Hearing, Deafness.

Causes.

Introduction into the external or internal auditory duct, of some foreign body, or of an insect (flea, louse, &c.) or worm. Singing in the ear, and hardness of hearing, proceed often from the introduction of an intestinal worm into the Eustachian tube (the internal auditory duct which opens behind the *velum* of the palate); the abnormal development of the tonsils, or also of the adjacent lymphatic ganglions, will often produce the same effect, by compressing the Eustachian tube.

Effects.

There are cases on record in which the introduction of a flea into the cavity of the ear has given rise to a most violent fever, bordering on positive delirium and madness.

Treatment.

Put a few drops of camphorated oil (Part II., 10) into the ear, and stop it afterwards with a little wool or cotton. This suffices, in most cases, to expel or kill the insect. Should the pain persist, apply sedative-water compresses (Part II., 48) behind the ears. When the pain is gone, wash the cavity of the ear by means of tar-water injections (Part II., 53, *b*). Gargling with salt water (Part II., 47). Should these means prove insufficient, a surgeon must be applied to, to probe the ear and extract the foreign body. As regards singing in the ear, and hardness of hearing, arising from tumefaction of the tonsils, see GLANDS. The use of the camphor cigarette (Part II., 8), and frequent gargling with salt water, will often suffice to expel intruders from the Eustachian tube.

In some cases, the singing in the ears, the earache, and other auricular affections, proceed from an herpetic eruption in the cavity of the ear, occasioned by the action of mercurial or other poisonous agents. In such cases, camphorated alcohol (Part II., 9) is dropped into the ear from time to time, care being taken to anoint the ear each time with camphorated pomatum (Part II., 13). Galvanic plates (Part II., 27) are applied, from time to time, all round the ear. Iodurated decoction of sarsaparilla (Part II., 40); iodurated decoction of madder (Part II., 39); frequent gargling with salt water.

39. EMPHYSEMA.

Infiltration of gas in the subcutaneous cellular tissue (*inflation*); or between the lungs and pleura (*pulmonary emphysema*), proceeding from disease of the chest.

Treatment.

Besides the treatment required for the primary disease, keep camphorated alcohol compresses (Part II., 9) constantly on the chest; bathe the back and limbs often with camphorated spirits of wine, and make afterwards frictions with camphor pomatum (Part II., 13) between the shoulders.

40. Empyema.

Abscess of the chest, or collection of pus between the lungs and pleura, caused by the introduction of a foreign body, such as a pin, prickle, &c., into the pulmonary tissue.

Symptoms.

Burning fever, sensation of heaviness and burning in the part corresponding to the seat of the affection, suffocation, acute pains, loss of appetite.

Treatment.

Aloes (Part II., 1) and castor oil (Part II., 16). Frequent applications of camphorated alcohol compresses (Part II., 9) on the tumour, and of sedative-water compresses (Part II., 48) round the neck, and on the region of the heart. Frequent frictions with camphor pomatum (Part II., 13) on the back and loins. Emollient camphor clyster (Part II., 21) morning and night, and from time to time a superpurging clyster (Part II., 23).

41. Erysipelas, St. Anthony's Fire, Rose, Blast.

Congestion and inflammation, occasioned by an infiltration of the subcutaneous tissues with acid matter, emanating either from the purulent fermentation of a wound, or from the parasitism of an insect or worm. The parts affected are inflamed and tumefied. The most dangerous species of erysipelas, the *traumatic,* which used to form so common and formidable a complication of wounds, need no longer be dreaded, with our new method of dressing wounds.

Treatment.

Sedative-water compresses (Part II., 48) are applied on the inflamed surfaces; when the burning sensation caused by them becomes too painful to bear, they are removed, and the skin is anointed with camphor pomatum (Part II., 13). In some cases, and more particularly in erysipelas of the face, saline cataplasms (Part II., 19) are recommended; the comparative slowness of their action is amply compensated by this, that they are a milder application than the sedative water, and may accordingly be kept on much longer. Should the erysipelas exhibit a tendency to spread, the affected part must be hemmed in on all sides with compresses imbibed

with camphorated spirits of wine (Part II., 9). In the intervals between the applications, and also if the part affected manifests a tendency to crack, it must be kept anointed with camphor pomatum, or, better still, covered with a camphor cerate plaster (Part II., 14). Galvanic plates (Part II., 27).

42. Exostoses, Tumours of the Bones.

An exostosis often makes its appearance unaccompanied by pain or other symptoms; it owes its origin, in most cases, to the action of mercurial agents. The formation or development of an exostosis may be prevented or arrested by the application of compresses imbibed with properly-diluted camphorated vinegar (Part II., 15), and afterwards sodative-water compresses (Part II., 18); but the principal remedy in cases of incipient exostosis is the iodurated decoction of madder (Part II., 39). If the exostosis is once fully formed and developed, the treatment must depend on the particular indications of each individual case; and all that can here be said on the subject is, that it is not always advisable to have recourse to the bistoury or to caustics.

43. Eyes, Diseases and Affections of the.

Causes.

The affections of the eye proceed from the introduction of foreign bodies, or absorption of corrosive substances, such as mercurial or arsenical agents, in some one or other region or part of the globe of the eye; or frequently also from the introduction of a worm, such as the hair-worm, or any other species of minute parasitical insect or worm, into the eye; in which latter case, the affection receives as many different names as the insect may happen to affect different parts of the eye (optic nerve, retina, vitreous humour, crystalline lense, cornea, conjunctive, lachrymal gland, nasal duct).

Treatment.

In affections of the eye, arising from the action of mercurial or arsenical poisons, the orbit of the eye is surrounded with compresses imbibed with camphorated alcohol (Part II., 9), and the nose covered with similar compresses; the patient should also sniff up camphorated spirits of wine. Galvanic plates (Part II., 27) are applied round the eyes, on the lids, and on the temples; galvanic probes are introduced into the

nostrils and chambers of the nose. Iodurated decoction of sarsaparilla (Part II., 40). The eyes are frequently bathed with a collyrium or eye-water, of one part of sedative water (Part II., 48) to nine parts of water, alternating sometimes with a collyrium of 15 grains of sulphate of zinc to a glassful of water. Camphor three times a day; aloes (Part II., 1) every three or four days. In affections of the eyes arising from other causes, the eyelids should be anointed every evening at bed-time with camphor pomatum (Part II., 13); in all other respects the above treatment may be adhered to.

This treatment has proved hitherto eminently successful in every species of affection of the eyes: inflammation of the eye, opacity of the cornea, cataract, specks or spots or film on the eyes, inflammation of the lids, *gutta serena*, &c.

44. Fainting Fits.

Treatment.

Put a bandage above the eyes, and bathe the head with sedative water (Part II., 48); apply compresses, imbibed with sedative water, round the neck and the wrists, and lotion the region of the heart with the same fluid. Make the patient inhale a little camphorated vinegar (Part II., 15), and swallow a glass of sugar water mixed with a tea-spoonful of sedative water.

45. Falls.

Treatment.

Applications of sedative water (Part II., 48) on the head, lotions with the same over the whole body, compresses saturated with it round the neck and on the parts contused (but not cut open), with frictions with camphor pomatum (Part II., 13), suffice to efface in a few minutes the traces of the severest fall, provided, of course, there be no lesion of any of the organs essential to life. Aloes (Part II., 1), and emollient camphor clysters (Part II., 21).

46. Fever—Cerebral Fever, Brain Fever; Typhus Fever; Yellow Fever; Bilious Fever, Gastric Fever, &c.

Causes.

A fever may proceed from indigestion, the abuse of spirituous liquors, constipation, infiltration into the blood of

an acid produced by a purulent fermentation, or by the parasitism of a worm or insect, in short, from any cause tending to determine congestion of the blood. The intermission of a fever for one, two, or three days, is generally the consequence of an intermission in the feeding of the worms or insects by whose parasitism the fever is occasioned. *Cerebral* or *brain fever* arises frequently from the action of some parasitical animalcule on the brain.

Symptoms.

Frequency and irregularity of the pulse, alternate sensations of excessive cold and excessive heat. In intermittent fevers the face becomes wan, pale, and emaciated, and the patient wastes away.

Treatment.

Constant use of the camphor cigarette (Part II., 8). Camphor three times a day; aloes (Part II., 1) every other day; worm clysters (Part II., 24). Applications on the belly of sedative-water compresses (Part II., 48) or of vermifuge cataplasms (Part II., 18) wetted with sedative water. Frequent lotions all over the body, alternately with camphorated spirits of wine (Part II., 9) and sedative water. Compresses saturated with the latter fluid round the neck and on the head. Calomel in crystals (Part II., 6) two days running, with repetition of the same every eight days, until the fever is cured.

A Brain Fever is attended with violent throbbing in the arteries of the neck and temples, and delirium. It must be promptly combated by sedative-water applications on the head (taking care always to protect the eyes by a thick bandage), and round the neck and wrists; general lotions with sedative water all over the body, alternating with vigorous frictions with camphor pomatum (Part II., 13); these lotions and frictions to be continued until the cerebral symptoms have disappeared. As soon as the patient recovers his senses, aloes, (five or six grains) and a worm clyster (Part II., 24), and a vermifuge cataplasm (Part II., 18) on the belly. Infusion of borage (Part II., 36) hot, with one or two grains of camphor in each glass.

The Typhus Fever is, properly speaking, a verminous affection; it arises mostly from the invasion of the intestinal canal, in its entire length, by ascarides or other intestinal worms. The antiphlogistic treatment of the old school, with its diet, leeching, and bleeding, is but too often the cause

of a simple gastric affection terminating in typhus. In hospitals, prisons, seminaries, and other institutions, where a number of people are kept on insipid badly-prepared food, typhus fever readily assumes a contagious character. A milk diet and an abuse of sweetmeats have an especial tendency to give rise to gastric affections, bilious and typhus fevers.

A typhus fever is attended with vomiting of blackish matter; dark green or blackish fetid stools, prostration, cerebral fever, delirium, stupor, trembling, and starting of the tendons.

The hygienic regimen of our method (Section I.) is the best preventive against the invasion of this dangerous disorder. As soon as the first symptoms manifest themselves, apply sedative-water compresses round the neck and the wrists; wet the head with sedative water (taking care to protect the eyes by a bandage); apply lotions with sedative water all over the body, and afterwards frictions with camphor pomatum; vermifuge cataplasm on the abdomen. Aloes (five or six grains) and decoction of herbs (Part II., 2), and worm clysters. In the case of infants a table-spoonful of succory syrup (Part II., 52) twice or three times a day is substituted for the aloes, and a large piece of camphor is held close to the infant's mouth. Decoction of wild succory (Part II., 34), with a grain of camphor in each glass.

Compare also WORMS.

The same treatment is equally recommended against BILIOUS and MALIGNANT fevers.

For the treatment of the YELLOW fever, see CHOLERA.

For that of AGUE or INTERMITTENT fever, see POISONS, *e* (poisoning by miasmatic gases).

47. FISSURES AND FISTULES IN THE ANUS.

Fissures are cracks, or solutions of continuity, in the mucous membrane of the *rectum* or straight gut, or round the *anus*. A *fistule* or fistulous ulcer may be either blind or open; in the latter case, one of the openings is in the *rectum*, the other at the *anus*.

Causes.

Mercurial agents and injections with nitrate of silver are the principal causes of fissures and fistules in the *anus*. Fissures proceed frequently also from obstinate constipations, or violent diarrhœas and dysenteries. The introduction of a foreign

body into the mucous membrane of the rectum, or a wound inflicted on that membrane by the point of a syringe, or some other pointed body, or perforation of the rectum by *teres*, may give rise to the formation of fistules. A fistule in the anus may also proceed from caries of the back-bone or of the coccyx.

Treatment.

In the case of fissures, camphor bougies (Part II., 12) are introduced into the *anus*; in the case of fistules, the camphor bougie is first dipped in camphorated alcohol (Part II., 9), and then introduced into the fistule. Emollient camphor clysters (Part II., 21), morning and evening. Decoction of madder (Part II., 41). Frequent lotions with camphorated spirits of wine on the loins and round the anus. Hygienic regimen (Section I.). In cases where a mercurial origin is suspected, iodurated decoction of sarsaparilla (Part II., 40); frequent introduction of galvanic probes (Part II., 28) into the fistule; injections with 30 grains of sulphate of zinc in a pint of water. The object of the treatment of a fistule is to dry up the source of the purulent discharge, and to promote the gradual joining of the sides; if this latter result is not obtained within a reasonable time, the sides must be drawn together with stitches, and the part afterwards dressed in the usual way (see page 88).

48. Fistula Lachrymalis.

Weeping or watering of the eye, proceeding from an obstruction of the lachrymal duct, or natural passage of the tears.

Treatment.

Frequent applications of camphorated alcohol compresses (Part II., 9) on the part traversed by the lachrymal duct. Introduction of camphor pomatum (Part II., 13) into the corner of the eye at bed-time. Bathing the eyes frequently with a drop of sedative water (Part II., 48) in an egg-cup of water, and from time to time, with 15 grains of sulphate of zinc in a glass of water. Take grated camphor by way of snuff, and draw salt water (Part II., 47) up your nostrils.

49. Fluor albus; Whites.

Causes.

Introduction of vermicular ascarides, &c., into the female

parts of generation. This affection must not be confounded with discharges of a syphilitic nature.

Symptoms.

Itching in the parts, which sometimes becomes insupportable; discharge of matter of a more or less acrid nature; twinges in the stomach; pain in the back; loss of appetite; sluggish digestion; foul breath; falling away.

Treatment.

Hygienic regimen (Section I.). Injection of tar-water (Part II., 53, *b*) into the parts, three times a day. Let the patient every evening introduce camphor pomatum (Part II., 13) as deep as possible into the parts, or a camphor bougie (Part II., 12); a smarting sensation is felt at first, but this goes off in a minute or two. Occasional applications of camphorated alcohol compresses (Part II., 9) on the lower part of the abdomen; aloes (Part II., 1) every four days. This treatment has hitherto proved invariably successful; the discharge speedily ceases, and the attendant symptoms disappear.

50. Foul Breath.

Treatment.

Hygienic regimen (Section I.); aromatic breath lozenges (Part II., 43); frequent gargling with salt water (Part II., 47); chewing of mint leaves; take grated camphor, by way of snuff; let salt water, slightly acidulated with camphorated vinegar (Part II., 15), be drawn up the nostrils, or from time to time, instead of the salt water, a weak solution of sulphate of zinc (15 grains to a glass of water).

51. Freckles.

Bathe the skin alternately with sedative water (Part II., 48) and camphorated spirits of wine (Part II., 9), and wash your face afterwards with soap and water. Avoid for a time the glare of the sun.

52. Gangrene, Mortification.

Putrid fermentation of pus.—See Wounds.

53. Gangrena senilis, Dry Gangrene.

Same treatment as for King's Evil. Keep the affected

surfaces constantly covered with camphorated alcohol compresses (Part II., 9), and wash them occasionally with decoction of elder in which a red-hot iron has been extinguished. Iodurated decoction of sarsaparilla (Part II., 40). Galvanic plates (Part II., 27).

54. Glanders in Horses and in Individuals Attending Glandered Horses.

Causes.

Invasion of the chambers of the nose and of the *velum* of the palate by ticks or larvæ, which, by inoculating afterwards the bones and other tissues with the vitiated products of their parasitism, infect the circulation, and give rise to the most serious disorders, which, if not promptly and effectually combated, are sure to terminate in death.

Glanders in horses may also proceed from the action of mercurial salts that have accidentally become mixed with the fodder of the animals.

Symptoms.

Constant defluxion from the animal's nostrils of a sanious matter, which is slimy at first, but acquires, after a time, a greenish colour; short dry cough; torpor, and slowness of all movements; swelling of the lymphatic ganglions.

The glanders may be communicated to the individuals attending to the distempered animals, either by transmission of the morbific cause, or by inoculation with the purulent products of the disease. The infected person is seized with somnolency and stupor, fever, prostration, eruptions of pustules of a bad nature in the nasal chamber, mouth, and on the body. If the disease is not promptly and effectually checked, death ensues in three or four days. The treatment of the old school is absolutely powerless against this most formidable affection.

Precautionary Measures.

Replace the wooden cribs by stone ones; stop up every hole in the floor of the stables; give the walls every year a fresh coat of lime; wash the floor frequently with solution of chloride of lime; sweep away all cobwebs from the ceiling and walls; burn often tobacco and other odoriferous herbs in the stables. If the groom sleeps over the stables, insist upon his keeping his room clean and orderly; never forbid his

smoking in the stables; let him sponge his body night and morning with camphorated spirits of wine (Part II., 9).

Treatment.

As soon as any defluxion from the nostrils of the animal makes its appearance, inject into the nostrils, first, a mixture of oil and turpentine (Part II., 11), afterwards strong decoction of tar (Part II., 53, *b*), and, finally, a warm solution of 15 grains of sulphate of zinc in a quart of water; bathe the head with a mixture of oil and turpentine, or, better still, with camphorated spirits of wine. Combat the fever with sedative water (Part II., 48); bran-water clysters, with from two to three drams of sulphate of zinc to each pailful of water. This treatment is continued until the whole of the symptoms have given way. A bunch of leaves or roots of madder is mixed every day with the animal's hay or straw. Should the animal refuse to touch the food, make it swallow an infusion or decoction of an ounce of powdered madder-root (Part II., 41); galvanic probes (Part II., 28) in the nostrils.

Persons attending to glandered horses must wash their hands before and after each dressing, with camphorated spirits of wine, or with essence of turpentine. They ought to smoke tobacco, or to use the camphor cigarette (Part II., 8); and also occasionally inhale, or even draw up into the nostrils, camphorated spirits of wine diluted with twenty times its volume of water; camphor three times a day (about the size of a pea); bathing the head frequently with sedative water; aloes every other, or at least every third, day; a vermifuge clyster (Part II., 24) occasionally. At the least symptom of the invasion of the evil, burn the eruptions with camphorated alcohol, and bathe the body frequently with camphorated vinegar, properly diluted with water (Part II., 15). Inject camphorated alcohol diluted with water into the nostrils; let the patient often gargle his throat with the same mixture. Give him an emollient camphor clyster (Part II., 21), with 15 grains of sulphate of zinc dissolved in it; frictions with camphor pomatum (Part II., 13); iodurated decoction of madder and sarsaparilla (Part II., 30, 40).

Madder would seem to be the surest specific against this formidable disorder.

55. Glands and Lymphatic Ganglions, Swelling of the; Mumps; Swelling of the Tonsils, &c., &c.

Causes.

Introduction of a foreign body into a gland or lymphatic ganglion; bite or sting of an intestinal worm or insect. The inhalation of a simple miasma, or of a foul breath, suffices sometimes to cause almost on the instant a swelling of the tonsils.

But the most frequent cause of these glandular affections is the employment of mercurial agents. Parents treated with mercurial preparations bequeath to their children a predisposition to diseases of the lymphatic system.

Treatment.

As soon as one of the submaxillary glands, or of the glands of the neck, swells, apply on it a saline cataplasm (Part II., 19), and let the patient frequently gargle his throat with salt water (Part II., 47) acidulated with a few drops of lemon juice or camphorated vinegar (Part II., 15). Hygienic regimen (Section I.). The patient must avoid draughts and all sudden transitions from heat to cold. Should the glands of the neck and throat be tumefied to an extent to forbid the passage of solid food, he must be fed on rich highly-seasoned broth, generous wines, and occasionally a small quantity of aromatic liqueur (see p. 18).

Gargling with acidulated salt water will, in many cases, suffice to dissipate the inflammation and swelling of the tonsils; frequent touching of the affected tonsils with the finger (or a small rod or plug) dipped previously in camphorated spirits of wine (Part II., 9), will greatly contribute to the attainment of this desirable end.

When the inflammation of a gland terminates in suppuration, and the gland breaks outwards, the saline cataplasm must be replaced by the usual dressing of wounds and ulcers (see Wounds).

Should the swollen glands of the neck and chin resist the action of the saline cataplasms, the latter are to be replaced by compresses saturated with strong sedative water (Part II., 48, *a*). These compresses are applied on the affected glands with a strong and long-continued pressure; the burning sensation is afterwards allayed by the application of lint pledgets, plentifully anointed with camphor pomatum (Part

II., 13), and kept in position by stripes of sticking-plaster; or the gland is rubbed with camphor pomatum, and afterwards covered with a camphor cerate plaster (Part II., 14). Whilst the sedative-water compresses are on, the patient ought to walk in the garden, or up and down the room, with the windows open, if the season permits it, in order to guard as much as possible against the constant inhalation of ammonia, which might prove injurious to the lungs.

If the nature and situation of the affected gland admits of compression, its disorganization may be hastened by compressing it as strongly as possible between the fingers. Galvanic plates (Part II., 27), iodurated decoction of sarsaparilla (Part II., 40), and occasionally also iodurated decoction of madder (Part II., 39).

56. Goitre; Derbyshire Neck.

Causes.

Habitual use of iced drink, and of water that has filtered through geological strata abounding in veins of mercury. Goitre may also proceed from the sting of one of those insects that seem to possess the faculty of determining, by their mere suction, the abnormal development of most strangely complicated parisitical organs.

Treatment.

The same general treatment as in the case of swollen glands (see the preceding article), with the addition of camphorated alcohol compresses (Part II., 9) and dry cataplasms (Part II., 20); add to the saline cataplasm (Part II., 19) 30 grains of sulphate of zinc; galvanic plates (Part II., 27) on the neck; solution of iodide of potassium (Part II., 38).

The inhabitants of localities where goitre prevails endemically must wear a copper and zinc collar round the neck, and put granulated tin into the cisterns and drinking vessels, taking care to renew the tin every eight days (see p. 14).

57. Gout.

Causes.

Tendency of the articular ends of the bones to tumefaction, or to coagulable synovial secretions, which render the play of the articulation insupportable. Indolence and idleness, a sedentary mode of life, intense study, excess of venery, abuse

of spirituous liquors, but more especially those cursed mercurial preparations that are one of the greatest plague-spots of the old school of medicine, impart to the bones this tendency to tumefaction and softening at their ends. The *podagra* (gout in the feet) and *chiragra* (gout in the hands), commence generally in the big toe and in the thumb.

Symptoms.

Swelling of the affected part, extending gradually from articulation to articulation, and attended with the most excruciating pain, more particularly when it fixes among the small bones of the foot (or the hand). Gout has its crises, its intermittencies, and its periodicity.

Treatment.

Hygienic regimen (Section I.); iodurated decoction of madder (Part II., 39); applications of sedative-water compresses (Part II., 48) on the affected joints. When the pain has given way, and the patient wishes to walk, he must cover the affected part with lint pledgets plentifully anointed with camphor pomatum (Part II., 13), and kept in place by stripes of sticking-plaster, or, better still, by a camphor cerate plaster (Part II., 14). Twice a day, general lotion with sedative water all over the body, followed by friction with camphor pomatum for ten minutes. If the season permits, sedative baths (Part II., 3), with general friction. Galvanic plates (Part II., 27). Blood baths (Part II., 5) also do good service, particularly in cases of mercurial origin.

If the intensity of the pain has produced a general disorder in the economy, the patient must take a strong dose of aloes (Part II., 1).

This treatment has proved eminently successful, effecting in many cases a radical cure, and in others giving the patient a relief almost equivalent to a perfect cure.

58. Gums, Sanious.

Treatment.

Rub the finger dipped in camphorated spirits of wine (Part II.,9) frequently over the gums, and gargle your mouth afterwards with salt water (Part II., 47). Drink decoction of madder (Part II., 41), and subsequently iodurated decoction of sarsaparilla (Part II., 40).

59. Gutta Serena; Amaurosis; Drop-Serene.

Weakness or loss of sight, with immobility of the pupil. See Eyes, Diseases of the.

60. Hæmorrhage.

Causes.

Laceration of a blood-vessel by the action of a cutting instrument or other sharp body, or by some living cause, or by chemical decomposition. We call *epistaxis*, or bleeding at the nose, the discharge of blood from the nose; *hæmatemesis*, or vomiting of blood, the discharge of blood from the stomach; *hæmoptysis*, *hæmoptæ*, or blood-spitting, the discharge of blood from the lungs; *hæmàtury*, or bloody urine, the discharge of blood from the kidneys or bladder; *flooding*, the discharge of blood from the womb; *dysentery*, the discharge of blood from the large intestines; *traumatic hæmorrhage*, the discharge of blood proceeding from a wound, surgical operations, &c.

Effects.

Gradual enfeeblement; fainting. An unchecked hæmorrhage may sometimes lead to death from exhaustion.

Treatment.

If the artery from which the blood is discharged, happens to be within reach of the hands, tie it in the manner described in the article on Wounds (see that word). If this happens to be impracticable, inject into the cavity or part from which the blood is discharged (the nose, womb, ears, wound), the following mixture:—

Take of Tar-water (Part II., 53, *b*), a pint.
Camphorated spirits of wine (Part II., 9), 3 oz.
Camphorated vinegar (Part II., 15), 3 oz.

Strain through a close linen, and inject either cold or warm. Bathe the neighbouring surfaces with the same fluid. Apply afterwards compresses, saturated with camphorated spirits of wine, on the nose, behind the ears, on the lower part of the abdomen, according to the respective seat of the hæmorrhage. In hæmatemesis, or vomiting of blood, give the patient camphorated alcohol, properly diluted with water, to drink (see pages 50, 51). If there are grounds to sup-

pose that the vomiting of blood proceeds from the ingestion of a leech or a larva, which, in fields and woods, often happens to people from drinking water out of a ditch or pool, give the patient, besides employing the above means, also a strong solution of common salt, and a grain of tartar emetic after, to induce vomiting more speedily; let the patient afterwards drink camphorated brandy (page 50), and apply lotions with camphorated alcohol on the epigastric region.

In the case of wounds, and in uterine flooding, the tar-water, camphorated alcohol, and vinegar injection, is followed by an injection into the wound or uterus of camphorated oil (Part II., 10).

For *hæmoptysis*, see BLOOD-SPITTING; for *dysentery*, DIARRHŒA.

61. HÆMORRHOIDS, PILES.

Causes.

Hæmorrhoids or *piles* are tumours of different sizes and various shapes, seated round the internal circumference of the *anus*, and occasioned by the tickling of hard *fæces*, or of vermicular ascarides driven down to the rectum, in consequence of the ingestion of aromatic substances, or by the action of mercurial preparations.

Aloes is looked upon by some as a cause of the piles: this is a most erroneous notion. The action of the aloes produces no piles; the formation or aggravation of piles imputed to it is simply a consequence of the hardness of the fæces pushed by the aloes forward to the *rectum* and *anus*.

Treatment.

Introduce into the anus, three times a day at the least, camphor pomatum (Part II., 13), or a camphor bougie (Part II., 12), which is left to melt. Emollient camphor clysters (Part II., 21). Apply on the loins sedative-water compresses (Part II., 48), or saline cataplasms (Part II., 19); aloes (Part II., 1) every third or fourth day. This medication will greatly alleviate the suffering from piles. If you wish to get rid of them altogether, introduce into the anus a linen plug saturated with camphorated spirits of wine (Part II., 9), or a camphor bougie previously dipped in camphorated alcohol, and bear the burning as long as you possibly can; take afterwards a hip bath in tar-water (Part II., 58, *c*), and put plenty of camphor pomatum up the anus; cover the orifice of the anus

with lint pledgets well anointed with camphor pomatum, and put over them some oil-silk or pig's bladder. Repeat this process as often as you can manage. Galvanic probes (Part II., 27). Iodurated decoction of sarsaparilla (Part II., 40).

62. Headache, Megrim.

Causes.

A *headache* may proceed from indigestion or other serious disturbances in the digestive functions; or from acid infection, and consequent congestion of blood in the vessels of the brain; or from any other cause that determines a great flux of blood towards, or prevents its return from, the head.

A headache proceeds also often from local causes, viz. from the introduction of a foreign body, insect, &c., into the chambers of the nose, the orbit of the eye, the cavity of the ear; the most violent megrim, headache, or even brain fever, may arise from the irritation produced by these causes.

But the most formidable, the most intense, the most obstinate headache, is that which proceeds from the action of mercurial preparations.

We call *megrim* the ache which affects a circumscribed part of the head only, and in most cases the frontal region above either eyebrow; *headache*, that which affects the whole upper region of the head.

Treatment.

A simple application of sedative water (Part II., 48) on the head, and of sedative-water compresses round the neck, will in most cases suffice to dissipate an incipient headache. Where this means fails, it may be assumed that the headache is the result of some disturbance in the digestive functions, and the patient must in that case take at once 5 grains of aloes (Part II., 1), and drink about one-fourth of a glass of salt water (Part II., 47) after.

Grated camphor, taken by way of snuff, cures megrims of which the cause is seated in the chambers of the nose; injections of camphorated oil (Part II., 10) into the cavity of the ear, cure those megrims of which the cause is seated in the auditory duct.

For the treatment of Cerebral or Brain Fever, see Fever.

63. Heart, Diseases of the—Palpitations, Hypertrophy, Aneurism of the Heart.

Causes.

An *aneurism* proceeds from the laceration of the internal walls of the cavities of the heart or their accessories; *hypertrophy*, from the thickening of the walls of the heart, and paralysis of its valves; *palpitations* are symptomatic of either of the preceding affections, or proceed from the invasion of the substance of the heart by worms.

Symptoms.

In *aneurism*, the heart beats violently and irregularly; in *hypertrophy*, it beats obscurely; in *verminous affections* of the heart, it beats with violence, but with regularity. *Hypertrophy* is attended with dulness, heaviness, and a smothering sensation; *aneurism* with a choking sensation.

Treatment.

Verminous palpitations give way instantly to the simple application on the region of the heart of compresses saturated with camphorated alcohol (Part II., 9). The patient must strictly conform to the hygienic and vermifuge regimen (see Section I. and Worms). Should the palpitations not yield to this treatment, apply on the region of the heart, and round the neck, compresses saturated with sedative water (Part II., 48), and have recourse to frictions with camphor pomatum as often as you can manage, but at least three times a day; aloes (Part II., 1) every four days. Avoid all violent exercise, long walks, and every species of over-fatigue, until you feel perfectly well again.

However, should the patient not derive speedy relief from the above treatment, it must at once be suspended, because, in that case, we have to deal with *aneurism*. Here we must rest contented with applying sedative water on the head and round the neck, during the fits of choking; the patient must be kept in a state of perfect quiescence; he must eat little at a time, and often.

This treatment will cure palpitations and hypertrophy of the heart; in *aneurism*, it will at least afford a relief, which no other method of medication can pretend to give.

64. Hemiplegia, Paralysis of one side of the Body.

Causes.

The cause of hemiplegia has its seat in the lobe of the brain opposite the palsied side. Thus, where the paralysis affects the right side of the body, its cause is seated in the left lobe of the brain. Hemiplegia proceeds from congestion of blood, or extravasation of blood on the brain, or from disorganization of that organ produced by the action of mercury, or by the gnawing of an insect.

As has been intimated already, this sort of paralysis affects only the one half of the face, nose, tongue, and chest, one eye, and one arm, and often, also, the leg of the same side. A longitudinal line, drawn from the central part of the head, backwards along the spine, forwards over the brow, nose, chin, and breast-bone, marks the line of demarcation between the sound and the affected side.

Treatment.

An *incipient* hemiplegia will often give way to the prompt application, as soon as the first symptoms are observed, of plenty of sedative water (Part II., 48) on the head (care being taken to protect the eyes by a thick bandage), together with sedative-water lotions over the back and chest, and frictions with camphor pomatum (Part II., 13). The treatment must be continued until the symptoms have completely disappeared, which is the case, sometimes, in a quarter of an hour. Should any traces of the attack still remain, sedative-water compresses must be applied on the side of the head opposite the palsied side of the body.

In cases of hemiplegia of old standing, the hygienic regimen (Section I.), together with frequent lotions with sedative water, and frictions with camphor pomatum, will, at all events, tend to diminish the gravity and intensity of the affection. The patient should take aloes (Part II., 1) every second or third day, and occasionally also castor oil (Part II., 16); an emollient camphor clyster (Part II., 21) every day; sedative baths (Part II., 3), with application of galvanic plates (Part II., 27); and blood baths (Part II., 5). See also Palsy.

65. Hiccough, Hiccup.

The hiccup is a convulsive or spasmodic movement of the midriff, arising from a difficult and laborious digestion.

Treatment.

Rub the pit of the stomach with sedative water (Part II., 48), and drink salt water (Part II., 47).

66. Hydrophobia, Dog-Madness; Rabies Canina.

Causes.

Invasion of a nervous centre, and in the dog, for instance, of the string of the tongue, by an insect, tick, or worm.

The inoculation of the virus by the bite of a mad dog produces the same effects in man.

Symptoms.

Abhorrence of water; fits of fury, during which the patient, in spite of himself, tries to bite the persons about him; frothing at the mouth; convulsions, which terminate finally in a most horrible death.

The poison of hydrophobia may lie dormant in the body for a shorter or longer period of time.

Treatment.

Immediately after a person has been bitten by a dog suspected to be mad, the bite must be covered with sedative-water compresses (Part II., 48), no matter what smarting and burning this application may cause the patient to feel. When the compress is dry, it is removed, and the wound sprinkled over with grated camphor; lint pledgets well anointed with camphor pomatum (Part II., 13) are laid over this, and the dressing is completed in the usual way (see p. 88). The parts about the wound are covered with compresses imbibed with sedative water, and the whole body is bathed with that liquid. Hygienic regimen (Section I.). It is always advisable to destroy the dog, or, if possible, to send the person who has had the misfortune to be bit, away to a distance from the spot where the accident occurred; as the imagination exercises no mean influence in cases of this kind. Should, from an omission of these precautionary measures, or in spite of them, symptoms of hydrophobia declare themselves, the unfortunate patient must at once be immersed in an alkaline-ferruginous bath (Part II., 3, *a*), the usual precautions being taken to prevent his doing any mischief to his attendants. Compresses imbibed with sedative water are applied round the neck, and the head is wetted with the same liquid, care

being taken to protect the eyes by a thick bandage. Whilst this is going on,

two cloves of garlic,
an onion,
15 grains of camphor,

are bruised together in a mortar, with a sufficient quantity of castor oil to give the mass the consistence of paste; this paste is formed into pellets, and the moment the patient opens his mouth to bite, these are thrown in between his teeth. Whilst they are preparing, grated camphor is thrown into the patient's mouth. On quitting the bath, the patient is rubbed with camphor pomatum, and the bathing the head and body with sedative water is continued, until the alarming symptoms have given way. The patient is then purged with castor oil (Part II., 16), and worm clysters (Part II., 24) are administered to him. Frequent lotions with camphorated spirits of wine (Part II., 9) are also recommended.

67. Hypochondry.

See Constipation and Liver, Diseases of the.

68. Hysteria, Nymphomania.

We use the term Hysteria here only in the sense of Nymphomania.

Causes.

Introduction of foreign bodies, more particularly vermicular ascarides, into the female parts of generation.

Symptoms.

Itching in the parts, which gives rise to a tendency to lewdness, and throws the whole nervous system into disorder. Likings and inclinations of an objectionable nature; whimsical notions and fancies; waking dreams of the strangest kind.

Treatment.

Hygienic regimen (Section I.); worm clysters (Part II., 24); frequent tar-water injections (Part II., 53, *b*) into the parts; introduction of camphor bougies (Part II., 12) into the vagina, particularly at night; use of the camphor cigarette (Part II., 8).

The so-called "*Vapours*" are treated in the same way.

69. Ichthyosis, Scaly Eruption.

A peculiar cutaneous affection presenting a certain analogy of appearance with the disposition of the scales of a fish. See Skin, Diseases of the.

70. Indigestion, Sluggish Digestion.

Causes.

Want of food, excesses in eating and drinking, and the improper nature of the aliments, contribute as much to the frequency and gravity of indigestion, or of hard and sluggish digestions, as want of exercise, and an irregular distribution and apportioning of the hours of the day. The elaboration of the brain cannot proceed simultaneously with the elaboration of the stomach, as the *digestion of thought*, if we may be permitted the expression, draws its nutriment from the products of the stomachic digestion. That privation cannot fail to exercise a most injurious effect on the digestive function, is equally evident, since the stomach being the great organ of digestion, naturally craves periodical supplies of food whereon to exercise its action and powers, and will, in default of such supplies, necessarily turn and prey upon itself.

Preventive Treatment.

Country people, and persons of active habits and occupations, are rarely troubled with indigestion. Our advice here is more particularly addressed to the studious, the sedentary, and the unoccupied. To all such we recommend to take every day regularly an hour's exercise in the open air, and more especially exercise of a nature to compel an occasional bending of the body, and consequently a pressure on the gall bladder. Digging the ground, sawing and cleaving wood, playing at nine-pins, bowls, cricket, golff, hand-ball, leap-frog, are among the exercises and diversions which may be recommended for this purpose. Persons little accustomed to active movement may limit the time devoted to exercise to from five to ten minutes for the first days, and increase it afterwards gradually to one hour. After the exercise, the body should be sponged with sedative water (Part II., 48) for about a minute, and frictioned afterwards with camphor pomatum, and shampooed for twenty minutes (see pp. 56, 57); the body should then finally be washed with camphorated alcohol (Part II., 9), to remove the fatty particles

from the skin; hygienic regimen (Section I.); sugar water after meals and at bed-time.

Curative Treatment.

Sugar water, acidulated with vinegar, lemon-juice, or pomegranate seeds; lotions with sedative water on the pit of the stomach; a dose of aloes (Part II., 1) immediately; emollient camphor clyster (Part II., 21), with an ounce of castor oil in it; infusion of borage (Part II., 36); and should these means fail to produce the desired result, a dose of castor oil (Part II., 16).

71. Infants of Tender Years, Diseases of.

The intestinal diseases of infants ought always to be considered as vermicular affections, and treated accordingly by the hygienic and vermifuge regimen (see Section I., and Worms).

Infants should be given, every four days, morning and evening, a spoonful of succory syrup (Part II., 52). The lotions with camphorated alcohol (Part II., 9) and the frictions with camphor pomatum (Part II., 13), which form part of our hygienic regimen, are also recommended in the case of infants that are weaned. In their little indispositions apply a vermifuge cataplasm (Part II., 18) on the belly, and administer a little vermifuge clyster (Part II., 24). If this fails to produce the desired effect, a grain of calomel (Part II., 6) may be given.

If you are obliged to rear a baby by hand, you should endeavour to obtain from a cow-keeper leave to feed the animal from which you draw the milk for the infant, every day with a few bunches of sweet hay sprinkled with a little salt. Give the infant occasionally some succory syrup and a little emollient camphor clyster (Part II., 21). Frictions with camphor pomatum on the belly. During the sleep of the infant, a lump of camphor should be placed by the side of its mouth. By adhering to these rules and recommendations, you may rear an infant by hand as healthy and ruddy as if it had been brought up at the mother's or nurse's breast.

72. Inflammation.

This word, which played so important a part in the pathological dictionary of the old school, is with us simply a term

designating one of the symptoms or effects of a disease. The inflammation of a tissue is an effect and symptom of the lesion of the tissue from some cause or other. If you cure the lesion, by combating and removing its cause, the inflammation will give you no trouble; the effect will disappear with the cause that produced it. We shall not occupy ourselves here, therefore, with inflammation as a particular disease, but refer the reader to STOMACH, DISEASES OF THE; CHEST, DISEASES OF THE; EYES, DISEASES OF THE; WOMB, DISEASES OF THE, ETC., ETC., for *inflammation of the stomach, intestines, lungs, eyes, womb, &c., &c.*

73. INSANITY, MENTAL ALIENATION, MADNESS, MANIA, MONOMANIA, DEMENTIA, CRAZINESS, LUNACY, IDIOTCY.

Causes.

A bad or defective conformation of the brain, congenital or accidental; disorganization or compression of any part of the cerebral substance, arising from the introduction of a foreign body, or from the development of hydatides (eggs of the tapeworm), or from the gnawing of a larva; congestion of blood in the vessels of the brain, from physical or moral causes; and last, though certainly not least, mercury, that fearful cause of the most terrible mental disorders.

Treatment.

Copious affusions of sedative water (Part II., 48) on the head, with compresses of the same applied round the neck and the wrists, suffice to dispel attacks of madness proceeding simply from cerebral congestion and determination of blood to the head. The same means, combined with the frequent use of the sedative bath (Part II., 8), will at least afford some relief, and exercise a calming influence in incurable cases.

For the treatment of insanity proceeding from the presence of parasites, see WORMS; for that of insanity suspected to proceed from the action of mercurial preparations, see POISONS, c.

The wretched system of the straight-waistcoat and physical force and restraint school cannot be sufficiently reprobated and condemned. Kindness, combined with firmness, will give the physician or keeper of a lunatic a moral influence over his patient which will do more in the way of making him gentle and submissive, than all the straight-waistcoats, chains, and lashes in the world could accomplish. A furious

madman must, of course, be restrained from harming himself or others; but even here the application of physical force should be restricted within the narrowest possible limits. The comfort of the patient ought always to be consulted, and attended to as far as is compatible with the requirements of his safe keeping. Treatment such as recent investigations have shown to be the order of the day in one of our largest public institutions for the reception and "*cure*" of mental diseases, is a disgrace to all concerned in it, except, of course, the poor victims themselves.

74. ITCH.

Cause.

The itch is a disease of the skin, produced by the parisitism of a species of flesh-worm smaller than the common louse.

Effects.

Wherever this flesh-worm deposits its eggs a conical pustule rises, surrounded with an inflamed areola. The itching caused by the presence of the worm and its eggs in the skin is sometimes positively insupportable; and the worst of it is, that the more the patient scratches and tears the skin, the more he contributes to propagate the evil.

The itch is communicated through the insect, like every other pedicular disease.

Treatment.

One single sedative bath (Part II., 3), with a complete change of linen and clothes after, will often suffice to cure the itch, since the ammoniacal water destroys the insect; however, as the eggs remain, it is more prudent to continue taking a sedative bath for several days running, and to have one's night-clothes (shirt, drawers, stockings or socks, and cap) anointed with camphor pomatum (Part II., 13). The day-clothes also ought to be impregnated with the odour of camphor. Should the patient not have the means of taking sedative baths, he may substitute for them general frictions all over the body with sedative water or camphorated alcohol (Part II., 9), and camphor pomatum or olive (poppy, rape-seed, &c.) oil after. The clothes may be disinfected by sprinkling them plentifully with camphor and shutting them up in a close box, or by fumigation with brimstone in a dark closet.

The workmen in camphor refineries, manufactories of acids (vinegar works, vitriol works, &c.), animal black factories, glue factories, gas works, oil mills and refineries, &c., are little liable to catch the itch, being constantly surrounded by insect-destroying substances.

75. King's Evil, Scrofula.

Causes.

This disease proceeds generally from an hereditary taint bequeathed by sickly parents, who have, both or either of them, been subject to mercurial treatment.

Symptoms.

Swelling of the glands; small knots appear under the chin or behind the ears, which gradually agglomerate and consolidate into large hard tumours, showing generally, for a time, very little tendency to softening and suppuration. When they break at last, they discharge no pus like other abscesses, but a thin sanious matter, and often change to confirmed deep ulcers. Other parts of the body are also liable to be attacked by this distressing affection, as the eyes, nose, lips, breasts, arm-pits, groins, hands, feet, and the internal organs (lungs, liver, spleen, mesentery).

Preventive Treatment.

Persons of a lymphatic make and predisposed to scrofulous affections, ought to bathe their body frequently with camphorated alcohol (Part II., 9); or with eau de cologne; hygienic regimen (Section I.); decoction of sarsaparilla, simple or iodurated (Part II., 40); sea-bathing, or, if this is not readily accessible, sedative baths (Part II., 3).

Curative Treatment.

Application of sedative water (Part II., 48) and saline cataplasms (Part II., 19) on the tumours; burn the wounds with compresses of camphorated alcohol three times a day, and also before each dressing; apply afterwards galvanic plates (Part II., 27), and keep the wounds covered with camphor cerate plasters (Part II., 14). The ulcers are dressed in the same way as other wounds (see Wounds). Frequent lotions with camphorated spirits of wine, and frictions with camphor pomatum (Part II., 13); iodurated

decoction of madder (Part II., 39); hygienic regimen (Section I.).

76. Kystis, Cystis, Cyst.

An organized sack or pouch, generally bilocular, with very thick and cartilaginous walls, and filled with water. Cysts have their seat in the joints, and may be mistaken sometimes for swelled ganglions.

Open the cyst with a strong needle, or with Vienna caustic (see Cancer), or have it removed by a surgeon, and dress the wound in the usual way (see Wounds).

77. Liver, Diseases of the—Green Sickness, Chlorosis; Icterus, Jaundice; Inflammation of the Liver, Hepatitis; Obstructions and Tumours of the Liver.

Causes.

Invasion of the liver by worms (among others by the hepatic gourd-worm), which, by obstructing the hepatic ducts, and the biliary duct, impede the secretion and defluxion of the bile, and determine the coagulation of that fluid, and its transformation into gall-stones, of course, with the whole attendant train of injurious effects on the duodenal digestion, and on the chylification of the alimentary mass issuing from the stomach.

The presence of worms in the liver produces often the most fearful ravages in that organ; hydatides develop themselves sometimes to such an extent, at the expense of the hepatic substance, that nearly the whole liver is finally transformed into a large water-bag. The teres and the tape-worm disorganize the tissue of the liver and exfoliate the surfaces of the hepatic ducts.

But worms are not the only cause of hepatic affections; the liver is exposed equally to the introduction of other foreign bodies into its substance, which may produce lesions of greater or less extent and gravity, determining finally the intumescence of that organ, or the formation of abscesses in its substance.

Mercurial treatments are apt to determine the development of a scirrhus in the liver, which may in the end invade the whole abdominal cavity.

Effect and Symptoms.

Want of appetite, which increases gradually to a positive loathing of food; progressive swelling of the belly, particularly the right side; jaundice invading the skin all over the body, even to the white of the eye, the cheek-bones alone preserving their natural colour; diarrhœa, the stools are glairy, and gall-stones are often found in them. In some cases an abscess forms, and breaks either about the loins or on the belly; the cessation of the discharge from open abscesses of the liver is often only a sign of the profound disorganization of that organ. Women, and especially young girls, contract depraved tastes, inducing them to desire the most extraordinary dishes, and to eat ashes, coal, earth, and even excrements.

Treatment.

Hygienic treatment (Section I.); a dose of calomel (Part II., 6) two consecutive days, and the same to be repeated every eight days; aloes (Part II., 1)—with castor oil (Part II., 16), next morning—every four days, until the patient feels relieved. Worm clysters (Part II., 24) frequently; frequent applications of vermifuge cataplasms (Part II., 18) over the whole belly, alternating with sedative-water compresses (Part II., 48); lotions with camphorated alcohol (Part II., 9) on the loins. If an abscess forms, frequent injections of camphorated oil (Part II., 10) into the fistule; iodurated decoction of madder (Part II., 39) three successive days, and the same to be repeated every eight days.

In the case of scirrhus, apply three times a day compresses imbibed with the strongest sedative water on the belly, and let them lie on ten minutes each time, replacing them after by a camphor cerate plaster (Part II., 14); salt water (Part II., 47).

In cases of swelling of the liver, suspected of mercurial origin, iodurated decoction of sarsaparilla (Part II., 40) is recommended; application of galvanic plates (Part II., 27) on the hepatic region, three times a day (before each dressing), for half an hour each time.

In the case of cattle, the treatment does not materially differ from the above; give the diseased animal plenty of bay-salt, and essence of turpentine in bran water (p. 46), with clysters of the same.

78. Loss of Voice, Extinction of the Voice.

A loss of voice from catarrhal affections will often give way to the use of the camphor cigarette (Part II., 8), with frequent gargling with salt water (Part II., 47), and application of sedative-water compresses (Part II., 48) round the neck. Actors and singers are more particularly recommended the use of the camphor cigarette, and gargling with salt water after their performances.

In cases of loss of voice arising from syphilitic infection, or from the abuse of mercurial preparations, the patient must drink iodurated decoction of sarsaparilla (Part II., 40); he should often touch the inside of the throat with the finger dipped in camphorated alcohol (Part II., 9), and gargle the throat with salt water after. Hygienic regimen (Section I.); camphor clysters, with 15 grains of sulphate of zinc per quart of water.

79. Measles; Scarlet Fever, Scarlatina; Small-Pox—Swine-Pox, Chicken-Pox; Sweating Fever, Miliaria.

Causes.

Infiltration of a virus into the dermis by the subcutaneous working of a species of insect not yet determined, but which probably belongs to the genus *tick*.

Symptoms.

Eruption of pustules—semispherical, red, distinct but close, in the *scarlet fever*; irregular, confluent, and much more numerous, in *measles*; purulent, distinct or confluent on a red ground, in the *small-pox*; accompanied by copious perspirations, in the *sweating fever*.

These several affections are all of them ushered in by shivering fits and fever; they cause a total prostration of strength. They are attended with the danger of a striking-in of the eruption, and consequent infection of the blood, or grave and, but too often, fatal affections of the respiratory or the digestive organs.

Treatment.

At the slightest appearance of an eruption, hasten to bathe the body all over with sedative water (Part II., 48), and to rub it with camphor pomatum (Part II., 13) after; sprinkle the bed, between the sheet and the mattress, with grated

camphor (Part II., 7); make the patient take three times a day camphor of the size of a pea, with a bowl of hot infusion of borage (Part II., 36), and occasionally with tar-water (Part II., 53, *a*). From time to time lotions with camphorated spirits of wine (Part II., 9), or with eau de cologne; constant use of the cigarette (Part II., 8); in the case of infants of tender age, a small lump of camphor should always be held or placed near the little patient's mouth; every four days a dose of aloes (Part II., 1), or a table-spoonful of succory syrup (Part II., 52) instead; a worm clyster (Part II., 24) every morning. Let the patient wear, night and day, stockings, drawers, and a night-cap, all anointed with camphor pomatum, and let the shirt also be anointed with the same; cover the face with a mask of camphor cerate (Part II., 14), and make the patient wear his hands in oil-silk gloves with plenty of camphor pomatum in them. Hygienic regimen (Section I.); spiced dishes and generous wines.

In cases where the disease has already made some progress, the affected surfaces must be washed with lukewarm tar water (Part II., 53, *b*), and covered after with camphor pomatum, to protect them from the air and light.

This mode of treatment, if resorted to before the eruption has fully come out, will cut short the further development of the affection; and in cases where it is had recourse to at a more advanced stage, it will still cure the disease more safely and in a shorter period of time than any other method of medication could accomplish, and will leave hardly any unsightly traces behind.

80. Mesenteric Consumption; Tabes Mesenterica Infantum, Swelling of the Mesenteric Glands in Children.

Causes.

Invasion of the peritonæum by worms, which determine the swelling of the mesenteric ganglions. Mercurial preparations administered to the infant or to its nurse.

Symptoms.

The belly is swollen and distended, and offers to the touch hard lumps, which increase every day in number. The infant loses its appetite; the natural sleep is replaced by a continual state of somnolency. The child suffers from colic. Costiveness alternates with diarrhœa.

Treatment.

Apply on the belly compresses imbibed with sedative water (Part II., 48); replace these from time to time, but principally at night, by a vermifuge cataplasm (Part II., 18); vigorous frictions with camphor pomatum (Part II., 13), at least three times a day. A spoonful of succory syrup (Part II., 52) in decoction of sarsaparilla, every morning and evening; camphor (Part I., chapter v.) three times a day; a worm clyster (Part II., 24, but omitting the tobacco) every evening; a dose of calomel (one grain, see Part II., 6) two consecutive days, and the same to be repeated every ten days. The nurse must follow the hygienic regimen (Section I.), and drink decoction of sarsaparilla, slightly iodurated (Part II., 40).

81. MENSTRUAL DISCHARGE, IRREGULARITIES AND OBSTRUCTION OF THE; IMMODERATE FLOW OF THE MENSES.

Obstructions of the menstrual flow, proceeding from the action of cold, produce a species of *tympany*.

Introduction of camphor bougies (Part II., 12) into the parts, every night in the case of women. Sprinkling the bed between the sheet and the mattress (or feather-bed) with grated camphor, and wearing swimming drawers with a camphor satchel sown in at the part corresponding to the *perinæum*, in the case of young girls. Aloes (Part II., 1) every four days. Hygienic regimen (Section I.); frequent exercise, with camphor pomatum frictions (Part II., 13) after. If the belly is distended, apply on it saline cataplasms (Part II., 19), and, in case of persistence, compresses imbibed with sedative water (Part II., 48).

82. NAILS GROWN INTO THE FLESH.

Wrap the affected finger or toe up in a compress imbibed with sedative water (Part II., 48); after ten minutes remove this, and replace it by a compress anointed with camphor pomatum, and kept in place till the next dressing by an india-rubber finger-stall drawn over it; place a small band imbibed with camphorated alcohol (Part II., 9) on the root of the nail, and keep it there till the next dressing, by means of the finger-stall.

Toe-nails grown into the flesh demand moreover the frequent use of the foot-bath (Part II., 4, *b*).

83. Necrosis of the Bones.

By the *necrosis* of a bone, we understand an affection which strikes with death a portion of a bone, and isolates it from the surrounding parts and tissues, like a foreign body. Hitherto a surgical operation was required to remove the dead part; our method of medication renders this operation unnecessary.

Treatment.

Keep a camphorated alcohol compress (Part II., 9) almost constantly applied on the surface covering the affected bone; whenever you are obliged to remove the compress for a time, cover the part with a camphor cerate plaster (Part II., 14). Frequent application of galvanic plates (Part II., 27) on the affected part; iodurated decoction of sarsaparilla. In cases of necrosis of the jaw-bone, or of the bones of the palate, the gums or the palate must be often touched with the finger dipped in camphorated alcohol, and the patient must gargle himself after with salt water (Part II., 47); a small galvanic plate ought also to be applied to the gums or palate.

By this treatment, large portions of bone struck with necrosis, have been detached and thrown off in the natural way, and without the intervention of the knife.

84. Nettle-rash; Urticaria; Urtication from Eating Mussels or the Roe of the Barbel.

The eating of mussels and of the roe of the barbel will, in certain seasons, produce a general congestion of the capillaries, with swelling, and eruption of small, red, horny papillæ, interspersed here and there with blisters or vesicles filled with liquid matter. The affection spreads gradually all over the skin; febrile symptoms manifest themselves, and delirium and even death may ensue, if the patient is not speedily rescued.

Treatment.

Bathe immediately the invaded surfaces with sedative water (Part II., 48), and apply compresses on them imbibed with strong sedative water (Part II., 48, *a*). Let the patient drink a glass of sugar water with a few drops of sedative water in it, and plenty of hot infusion of borage (Part II., 36) after.

85. Nightmare; Bad Dreams.

Treatment.

Hygienic regimen (Section I.). Every night at bed-time, a glass of sugar water with a few drops of sulphuric ether in it, and sprinkled over with a pinch of grated camphor.

86. Obesity.

Treatment.

Hygienic regimen (Section I.). Let the patient take proper exercise every day (digging, sawing and cleaving wood, nine-pins, bowls, &c.); frictions with camphor pomatum (Part II., 13) after. Aloes (Part II., 1) every four days. An emollient camphor clyster (Part II., 21) every morning.

87. Œdema, Anasarca, Collection of Water under the Skin.

Causes.

Infiltration and partial or general swelling of the tissues, proceeding from a local or general decomposition of the blood, arising from defective preparation of the blood. An œdema may proceed also from an aneurism of the heart, *ascites* or dropsy, softening of the brain or of the spinal marrow, costiveness during pregnancy; or from a too tight compression.

Symptoms.

The lymphatic vessels and the whole of the interstitial net-work of the vesicles of the cellular tissue become infiltrated with watery humour and gas; the swelling greatly impedes the freedom of the muscular movements; the œdematous parts will pit, if pressed with the finger.

Treatment.

We cannot expect to cure an œdema, except by the removal of the primary disease from which it proceeds. But it may meanwhile be kept down somewhat by the frequent administration of emollient camphor clysters (Part II., 21), and application of compresses imbibed with camphorated spirits of wine (Part II., 9). Occasional lotions with solution of acetate of lead are also recommended, of course with due caution. Iodurated decoction of madder (Part II., 39).

88. OSTEOSARCOMA—OSTEOSARCOMATOUS TUMOUR.

Abnormal development of the attachments of the muscles, occasioned by the presence of some foreign body, or by the gnawing of a larva, or by the action of mercury. The abnormal development is of a mixed nature, partaking equally of that of the bones and that of the muscle. An osteosarcomatous swelling is red, and of bony hardness; it is attended with violent fever.

Treatment.

The same as for *white swelling* (see SWELLING, WHITE), until the tumour softens and shows evident signs of suppuration. When this is the case, it suffices often to put a strong adhesive plaster (Part II., 54) on the tumour. If this fails to cause the tumour to break in the course of twelve or eighteen hours, the bistoury must be resorted to. After the removal of the pus, the sack must be washed by injections, first of camphorated oil (Part II., 10), afterwards of tar water (Part II., 53, *b*). The wound is then dressed in the usual way (see WOUNDS). Hygienic regimen (Section I.); iodurated decoctions of madder and sarsaparilla (Part II., 39, 40).

89. OVARIES, SWELLING, INFLAMMATION, SCIRRHUS OF THE.

Same treatment as for *diseases of the womb* (see WOMB, DISEASES OF THE). Application of compresses imbibed with the strongest sedative water (Part II., 48, *a*) on the painful region; the compress is removed after ten minutes, and the part covered with a camphor cerate plaster (Part II., 14). Should the sedative-water compresses produce a disagreeable excoriation, they are to be replaced by saline cataplasms (Part II., 19). Hygienic regimen (Section I.); galvanic pessaries (Part II., 29); iodurated decoction of sarsaparilla (Part II., 40).

90. OZŒNA.

Treatment.

Let the person affected draw salt water up his nostrils, and afterwards a solution of 15 grains of sulphate of zinc in a quart of water; let him gargle his throat with the same fluids, and take grated camphor by way of snuff. Frequent application of compresses imbibed with camphorated spirits of wine (Part II., 9) over the bridge of the nose. Iodurated decoction of sarsaparilla (Part II., 40).

91. Palsy, Paralysis.

The palsy is a loss or diminution of sense or motion, or of both, in one or several parts of the body, or even in the whole body (*general or total paralysis*), occasioned by the introduction of some foreign body, or of worms or insects, or of poisons, into one of the nervous centres which preside over motion.

Apoplexy (see that word) is a total paralysis of the entire brain; *paralysis* is the apoplexy (more or less lasting) of the root of one or several of the nerves emanating from the brain; *hemiplegia* (see that word) affects only one side of the body, and has its seat in the brain; *paraplegia* affects only the lower extremities, and has its seat in the lowest part of the spinal marrow.

Treatment.

Our efforts must be directed principally to the portion of the nervous system from which the affection primarily proceeds. The local applications are therefore made, in cases of general paralysis, on the head and along the spine; in *hemiplegia*, they are confined to the side of the head opposite the paralysed side of the body; in *paraplegia*, they are made along the spine.

Affusion of sedative water (Part II., 48) on the head (care being taken always to protect the eyes by a thick bandage); saline cataplasms (Part II., 19) all along the spine; afterwards camphor pomatum frictions (Part II., 13) for twenty minutes, on the back and loins, with frictions and shampooing of the palsied limbs. Purging clysters (Part II., 22); a dose of castor oil (Part II., 16) every fortnight. Let the patient take as often as he may, but at least twice a week, a sedative bath (Part II., 3), with frictions after; application of galvanic plates (Part II., 27) in the bath. Baths of blood (Part II., 5). Hygienic regimen (Section I.). Let the patient take exercise (digging, nine-pins, bowls, &c.), if he is able.

This medication has in many cases of paralysis or hemiplegia been crowned with the best success.

For the treatment of palsy produced by the action of mercury, see Poisons.

92. Peritonitis, Inflammation of the Peritonæum.

After childbirth, or after some surgical operation.

The application on the belly of saline cataplasms (Part II., 19), alternating with camphorated alcohol compresses (Part II., 9); a few doses of aloes (Part II., 1); injections of camphorated oil (Part II., 10) into the parts of generation; and the frequent administration of emollient camphor clysters (Part II., 21)—will speedily triumph over the peritonitis of women in child-bed.

The dressing of our method preserves from peritonitis after surgical operations.

93. Plague.

Causes.

The immediate cause, or, more correctly speaking, the *first symptom*, of the plague, is a boil of a malignant character, and which can only be the result of the infiltration of a virus by a tick or other venomous insect.

Symptoms.

A burning fever attends the development of the boil; the patient loses his appetite; he droops, and falls into a state of apathy, somnolency, and total prostration of strength; death speedily closes the scene.

The plague, though not indigenous in our part of the world, may yet be imported into it by clothes, bales of cotton, or any other substance affording a shelter and hiding place to the venomous insect which is its primary cause; there are on record some formidable instances of its appearance in France, Italy, England, &c.

Precautionary Measures.

Bathe the body morning and evening with camphorated vinegar properly diluted with water (Part II., 15), and rub it with camphor pomatum (Part II., 13) after (with shampooing). A worm clyster (Part II., 24) every other day. Sprinkling the clothes with grated camphor. Use of the camphor cigarette (Part II., 8). Hygienic regimen (Section I.).

Treatment.

The instant the pustule or boil makes its appearance, cover it with compresses imbibed with camphorated alcohol (Part II., 9), moisten the compress from time to time with fresh supplies of camphorated alcohol, and cover it with a stiffly-starched muslin handkerchief (see p. 51). Frequent lotions with

camphorated vinegar properly diluted with water, and friction with camphor pomatum, after. Tar water (Part II., 53, *a*) ought to be added to the patient's drink. Sugar water, acidulated with a little camphorated vinegar, is also strongly recommended. Hygienic regimen.

94. Plica Polonica.

An affection of the hairy scalp, in which the hair is matted and glued together, more particularly at the back of the head. This disease is almost unknown in the west of Europe.

Treatment.

Frequent affusions of sedative water (Part II., 48) on the head, and anointing with camphor pomatum (Part II., 13) after. Iodurated decoction of sarsaparilla (Part II., 40) for a drink.

95. Poisons.

The effects of poisons are mostly so sudden and violent as not to admit of the least delay in the administration of the proper antidote. It is to be desired, therefore, that everybody should be in a position to know the proper means to be resorted to in cases of poisoning.

The various kinds of poisoning may be classed under six different heads, viz.:—

a. With *acids:* sulphuric, nitric, muriatic, concentrated acetic, oxalic, prussic, &c.

b. With *caustic alkalies:* quicklime, potass, soda, liquid ammonia, barytes, magnesia, &c.

c. With the *oxides and the soluble and decomposable salts* of mercury, arsenic, lead, copper, gold, silver, platinum, tin, &c.

d. With *narcotic plants or pharmaceutical preparations of the same:* opium, belladonna, tobacco, henbane, stramony or thornapple, nux vomica, poisonous mushrooms, &c.

e. By the *inhalation* of carbonic acid gas, charcoal fumes, sulphuretted hydrogen gas, miasmatic gases.

f. With *alcoholic liquors:* wine, beer, brandy, &c. (intoxication and *delirium tremens*).

a. Treatment in cases of poisoning with Acids.

Prussic acid strikes with a rapidity that leaves very little hopes indeed for any successful attempt at resuscitation.

Incessant lotions with sedative water (Part II., 48); affu-

sions of the same on the head; wet the cavity of the mouth with it, by means of a small brush; if possible, make the patient take a spoonful of it in a glass of water. Sedative bath (Part II., 3). Ferruginous or chalybeate water to drink, if the patient can swallow it; if not, wet the cavity of the mouth with it, by means of a small brush.

In cases of poisoning by any of the other acids,

Take of powdered chalk, limestone, or white marble, two ounces.
Milk, one quart,

beat the powder up with the milk, and make the patient drink as much of the mixture as possible. After the administration of the milk and chalk mixture, give the patient half a glass of oil; if this fails to induce vomiting within a very short time, give immediately a grain of tartar emetic, in a glass of water. Renew the administration of the milk and chalk or lime mixture, and give another dose of tartar emetic, if the symptoms persist or return. Make the patient inhale sedative water (Part II., 48), bathe his body with the same, and apply compresses imbibed with it on the head and round the neck. Let the patient gargle his throat with a solution of 30 grains of bicarbonate of potass in a large glass of water. Promptitude is a principal condition of the success of this treatment.

b. Treatment in cases of poisoning with Caustic Alkalies.

Make the patient drink plenty of oil and of water acidulated with sulphuric acid, 18 grains of pure acid to a quart of water; and, if the oil fails to induce vomiting, give him a grain of tartar emetic. The patient may also take camphorated vinegar properly diluted with water (Part II., 15), and drink milk after. The oil has for its object, not only to induce vomiting, but also to lubricate the sides of the stomach and œsophagus, and to protect them thus from the corroding action of the poison. The same remark applies equally to the administration of oil in cases of poisoning with acids and other corrosive substances.

c. Treatment in cases of poisoning with the Oxides and Salts of Arsenic, Mercury, Lead, Copper, &c.

Against the oxides and salts of arsenic and mercury, give the mixture of milk and chalk or lime recommended sub *a*, with a thimbleful of wine after, and subsequently oil and tartar emetic, as sub *a*. Against lead salts, give the sulphuric

acid lemonade of *b*, and milk, oil, and tartar emetic after. In cases of poisoning with the oxides and salts of other metals, give the patient the milk and chalk or lime mixture of *a*, and a grain of tartar emetic immediately after.

In cases of chronic mercurial poisoning, let the person affected drink plenty of milk; occasional lotions with a solution of five grains of sulphate of zinc in a glass of water, and frictions with camphor pomatum (Part II., 13) after. Administer frequently a clyster of water with white of egg strained through a linen cloth, and sulphate of zinc, in the proportion of 15 grains to the quart of water. Sedative baths (Part II., 3), with application of galvanic plates (Part II., 27) gradually all over the body. Iodurated decoction of sarsaparilla (Part II., 40). Let the person affected keep habitually in his mouth a grain or globule of tin, which is to be occasionally melted and re-cast.

d. Treatment in cases of poisoning with Narcotic Plants: Belladonna, Mushrooms, Opium, Nux Vomica, Henbane, Hemlock, &c., or with the Vegeto-Alkalies and Salts extracted from those Plants.

Administer as promptly as possible a grain of tartar emetic. Give the patient from time to time a little camphorated vinegar (Part II., 15) in a glass of water; bathe the body with camphorated vinegar properly diluted with water; rub the back, chest, loins, and abdomen incessantly with camphor pomatum (Part II., 13). Constant affusions of sedative water (Part II., 48) on the head. Castor oil (Part II., 16). Emollient camphor clysters (Part II., 21). Occasionally hot infusion of fresh borage leaves (Part II., 36).

e. Treatment in cases of poisoning by the inhalation of Carbonic Acid Gas, Charcoal Fumes, and Miasmatic Gases.

Lotion the body with sedative water (Part II., 48), and make afterwards frictions with camphor pomatum (Part II., 13) on the chest, and more particularly between the shoulders. Make the patient inhale sedative water, and make him drink a little of it in a glass of water as soon as he can swallow. Apply sedative-water compresses on the head and round the neck. Emollient camphor clysters (Part II., 21).

In flat, moist, fenny, and marshy countries and localities, the hygienic regimen of our method (Section I.) should be strictly followed; other precautionary measures against the invasion of the ague are—frequent lotions with camphorated

alcohol (Part II., 9) on the pit of the stomach, and on the chest; the habitual use of the cigarette; frequent gargling with salt water (Part II., 47); emollient camphor clysters (Part II., 21) occasionally; burning of camphorated vinegar (Part II., 15) on a red-hot shovel.

f. Treatment of Intoxication and Delirium Tremens.

The same as sub *e*. The sedative water dissipates the fumes of wine, &c. Give the patient from time to time, also, a spoonful of oil; towards the end of the treatment, administer a few sedative baths (Part II., 8).

96. Polypus in the Nose.

Introduce a little linen plug imbibed with camphorated alcohol (Part II., 9) into the nose, and repeat the same frequently in the course of the day; cover the nose with camphorated alcohol compresses; after each dressing, let the patient draw up into his nostrils some camphor pomatum (Part II., 13), and afterwards some salt water (Part II., 47). Iodurated decoction of madder (Part II., 39).

97. Pylorus, Scirrhus of the.

Many cases of *scirrhus of the pylorus* proceed from the pernicious mode of treatment followed by the old school in vermicular and other affections of the stomach. In cases of this kind, the general treatment recommended for gastric affections (see Stomach, Diseases of the) will yield some relief, unless we have to deal with a total occlusion of the pyloric aperture, when the case may be considered desperate indeed. Besides the general treatment for gastric affections, apply all over the left side of the belly alternately, saline cataplasms (Part II., 19) well wetted with sedative water (Part II., 48), and compresses imbibed with camphorated spirits of wine (Part II., 9); suspend these applications occasionally to make room for galvanic plates (Part II., 27). Iodurated decoction of sarsaparilla (Part II., 40). Hygienic regimen (Section I.). See also Worms.

98. Quinsy; Cynanche; Inflammation of the Throat. (Wheezing and Strangling in Horses and Cattle.)

Causes.

Introduction into the throat of acid or ammoniacal vapours,

or other caustic substances, or of irritating dust particles. Invasion of the throat by worms or larvæ, the bites and titillations of which cause swelling of the tissues, and frequently œdema of the glottis. Use of mercurial preparations.

Symptoms.

Swelling and redness of the parts affected; sensation of dryness and constriction in the throat; difficulty of breathing and swallowing, particularly as regards solid food.

Treatment.

In cases of quinsy proceeding from the action of acid vapours, we recommend gargling with water slightly alkalized with sedative water (Part II., 48); in cases proceeding from the action of alkaline or ammoniacal vapours, gargling with water slightly acidulated with camphorated vinegar (Part II., 15). In cases proceeding from the action of irritating dust particles, gargling with a strong solution of common salt (Part II., 47). The use of the camphor cigarette (Part II., 8) suffices to dislodge the worms or larvæ that may have taken up their quarters in the throat; the effects produced by these parasitical animalculæ are combated by gargling with salt water (Part II., 47), and applying a compress imbibed either with sedative water, or with camphorated spirits of wine (Part II., 9), round the neck. Let the patient each time before gargling, touch the bottom of the throat with the finger (or a small rod) dipped in camphorated alcohol.

For the treatment of quinsy proceeding from the use of mercurial preparations, see ALMONDS, SWELLED.

In the *wheezing* and *strangles* of cattle and horses, we recommend oil and turpentine (Part II., 11), or an ounce of essence of turpentine in a pailful of bran water; worm clyster (Part II., 25); a large compress imbibed with sedative water, applied round the neck. Aloes (Part II., 1) every third day. Sprinkle the hay and straw with salt.

If you have reason to suspect that the distemper proceeds from the use of mercurial preparations, sprinkle the hay with about 30 grains of sulphate of zinc, and deposit in the drinking-troughs granulated tin, which is to be frequently melted and re-cast.

99. RANULA.

Swelling of the sublingual ganglions.

Touch the affected glands often with the finger dipped in

camphorated alcohol (Part II., 9), and wash your mouth with salt water (Part II., 47).

100. Rectum, Prolapsus of, the; Falling or Descent of the Gut; Inflammation of the Rectum.

Treatment.

Camphor bougies (Part II., 12) day and night; frequent application of compresses imbibed with camphorated alcohol (Part II., 9), on the loins and the lower part of the belly. Emollient camphor clysters (Part II., 21) morning and evening. Hygienic regimen (Section I.).

101. Rheumatism—Rheumatic Pains.

Causes.

Obstructed perspiration; sudden changes of the weather, and quick transition from heat to cold; wet clothes; damp beds; sitting or lying on the damp ground; living in damp kitchens, or cellars; introduction into the muscular tissues of a sharp-pointed foreign body, or of an insect or worm: the rheumatism arising from this latter cause is accompanied by shooting pains. But the most frequent of all causes of rheumatism is the use of mercurial preparations; and the cases proceeding from this cause are also invariably the most obstinate, and the most difficult to cure.

Treatment.

Apply on the region which appears to be the seat of the pain, three times a day, for ten minutes each time, compresses imbibed with sedative water (Part II., 48), or saline cataplasms (Part II. 19) well wetted with sedative water; apply galvanic plates (Part II. 27), each time, after the removal of the compresses or cataplasms; after this, bathe the part affected with camphorated alcohol (Part II., 9), and rub and shampoo it afterwards for twenty minutes with camphor pomatum (Part II., 13). Cover the part finally till the next dressing, with a camphor cerate plate (Part II., 14). A sedative bath (Part II., 3) or a sea bath every five days, and friction with camphor pomatum after. An emollient camphor clyster every morning. Hygienic regimen (Section I.). Muscular exercises (digging, nine-pins, bowls, &c.), and frictions with camphor pomatum after.

102. Rickets; Softening of the Bones.

Causes.

The immediate cause of a softening of the bones is the development of an acid which opposes the regularity of the calcareous deposit in the *plexus*, or net-work, of the osseous tissue. The principal primary causes of this are—1, a feeble organization inherited from diseased emaciated parents, or that have undergone mercurial treatments, or from mothers of weak, relaxed habits, living on a watery mucilaginous diet, or from fathers in the decline of life; 2, the habit of living in the midst of acid vapours or miasms, and shut out from the vivifying rays of the sun; 3, the parasitism of a worm or insect which disorganizes and decomposes the osseous tissue; 4, the action of mercurial preparations.

Effects.

In obedience to the laws of gravity and of muscular antagonism, the softened parts of the bones give way and grow crooked, thus occasioning distortions, deformities, and deviations from the normal shape, sometimes of a truly hideous character.

Treatment.

Frequent lotions with camphorated alcohol (Part II., 9) or eau de Cologne, all over the body, but more especially on the limbs of which the bones threaten softening. Lotion the body, and more particularly the parts actually affected, often with sedative water (Part II., 48), and rub them afterwards with camphor pomatum (Part II., 13). Galvanic plates (Part II., 27). Bathing in blood (Part II., 5). Iodurated decoction of sarsaparilla (Part II., 40), and occasionally also iodurated decoction of madder (Part II., 39). Hygienic regimen (Section I.). Orthopœdic apparatus appropriated to the nature of the deviation, but which ought never to torture the patient; the apparatus should be contrived in a manner to guide the further development of the organ in the proper channel, but without forcibly interfering with the abnormal development determined already by the disease.

Some of the gymnastic exercises usually recommended in cases of deviation of the spine, have a most injurious tendency, and may even occasion lacerations of the pulmonary tissue; nothing can be more foolish and hurtful, for instance, than to advise or permit the suspension of a deformed child by the hands.

103. Rupture.

On the first appearance of a rupture, the patient ought to be laid on his back, with the head lower than the loins; compresses imbibed with sedative water (Part II., 48) should be applied on the part of the abdomen corresponding to the ruptured spot, and gentle frictions made after. In most cases, this will suffice to effect a spontaneous returning of the gut. Where this is not the case, an expert surgeon must be consulted.

If the patient is compelled afterwards to wear a truss or bandage, the cushion of it must be greased with camphor pomatum (Part II., 13); a truss ought always to be made and applied with a proper regard to the comfort of the wearer.

104. Satyriasis; Priapism; Seminal Weakness; Nocturnal Pollutions; Masturbation.

Causes.

Invasion of the genital organs (particularly in children) by worms, especially by vermicular ascarides, whose titillations excite prematurely certain desires, the attempted gratification of which leads to the most deplorable mental and physical aberrations.

Precautionary Measures.

Hygienic regimen (Section I.). Sprinkling the couch of children every evening with camphor (between the sheet and bed or mattress). Making children wear drawers with a camphor bag or satchel sown in at the part corresponding to the perinæum.

Treatment.

Immersion of the genital parts in finely-grated camphor (Part II., 7) during the day, in camphor pomatum (Part II., 13) at night (see p. 89). Camphor cigarette (Part II., 8).

105. Scurvy.

Causes.

Invasion of the gums and inner sides of the mouth by worms, which disorganize the tissues, and lead to a general infection or vitiation of the fluids of the animal economy. Scurvy may proceed also from the long-continued or immoderate use of salted or smoke-dried provisions.

Symptoms.

Rottenness of the gums, which are apt to bleed on the

slightest touch; rottenness of the teeth; foul breath. The patient feels weary and heavy; frequent bleeding at the nose, and discharges of blood from other parts of the body; foul ulcers; a wasting fever comes on at last, and a general dissolution closes the sad scene in death.

Treatment.

Scurvy is generally divided into two principal species, viz. *land-scurvy* and *sea-scurvy;* the former may be cured by a sea-voyage; the latter gives way to land air, and the use of fresh vegetables, more particularly salads, water-cresses, scurvy-grass, &c.

But these chances of cure are rarely open to the patient, and least so on board vessels; whilst our method of treatment is accessible to every one. We would therefore advise all persons bound for a long sea-voyage to provide themselves with a medicine chest stocked with the remedial agents and preparations of our dispensatory.

At the first appearance of symptoms of scurvy, the person affected should often rinse his mouth with camphorated brandy (a grain of camphor to a liqueur glassful of brandy); if accustomed to the use of spirituous liquors, he should also drink from time to time a small liqueur glassful of camphorated brandy. Ladies may use instead eau de Cologne diluted with water. The patient ought often to take aloes (Part II., 1) and vermifuge clysters (Part II., 24). Lotions alternately with camphorated spirits of wine (Part II., 9), sedative water (Part II., 48), and camphorated vinegar, properly diluted with water (Part II., 15). The patient should also both chew and snuff camphor, and smoke tobacco, or inhale the camphor cigarette (Part II., 8); he should, besides, sprinkle his clothes and his hammock with grated camphor (Part II., 7). Spiced dishes (Part II., chapter iii.) and generous wines. Anti-scorbutic syrup (Part II., 49).

106. Sea-Sickness.

Treatment.

A dose of camphor (about the size of a pea) three times a day (see p. 45). Camphor cigarette (Part II., 8). Frictions on the pit of the stomach, alternately with camphorated alcohol (Part II., 9) or eau de Cologne, and with sedative water (Part II., 48). Embark fasting, and take a substantial breakfast or dinner on board, with a moderate quantum of good wine.

107. SKIN, DISEASES OF THE—RASH; TETTERS; HERPES; IMPETIGO; BLOTCHED FACE, CARBUNCLED FACE, ROSY DROP; TINEA, TINEA FAVOSA, FAVUS; SCURF; LEPROSY, ETC.

Causes.

The diseases of the skin, properly so called, are occasioned by the invasion and erosion of the sub-cutaneous tissue, by lice, ticks, small worms, larvæ of fleas, &c. But many cutaneous affections, and these precisely the most obstinate, are simply mercurial or arsenical eruptions.

Symptoms.

Sensation of the creeping of an insect; intolerable itching, which produces fever and sleeplessness. .

Treatment.

We distinguish here between superficial affections, that is, those which have their seat immediately under the epidermis, and cutaneous affections that are seated deeper in the substance of the skin: the itch and the dry tetters belong to the former; scurf, tinea, impetigo, ulcerous tetters, leprosy, to the latter class.

1. A superficial affection of the skin may be cured in a few hours, or, at all events, in a night, if the surface affected can be kept covered with camphorated alcohol compresses (Part II., 9) or with camphor pomatum (Part II., 13). In cases where the disease has invaded the whole surface of the skin, frequent lotions must be made with camphorated alcohol all over the body, and the patient must take a sedative bath (Part II., 3) every day, with frictions with camphor pomatum after; he must also sleep every night in a shirt, drawers, stockings, and nightcap anointed inside with camphor pomatum. Camphor three times a day (see p. 45); aloes (Part II., 1) every four days; emollient camphor clysters (Part II., 21) occasionally.

2. In the deeper-seated and more serious and obstinate cutaneous affections, compresses imbibed with sedative water (Part II., 48) must be applied on the surfaces affected three times a day, for about ten minutes each time, and without heeding the apparent exacerbescence of the cutaneous affection; the parts are then to be covered with camphor cerate plasters (Part II., 14), which are kept on till the next dressing. When the patient can no longer bear the application of sedative water, camphorated alcohol compresses must be ap-

plied instead; these are also to be kept on for ten minutes each time, and to be succeeded by a camphor cerate plaster, or by a linen cloth well greased with camphor pomatum and covered with oil silk.

Hygienic regimen (Section I.). Iodurated decoction of sarsaparilla (Part II., 40).

If the affection is general, the patient must frequently take a sedative bath, and apply galvanic plates (Part II., 27), moving them slowly about from one place to another.

If the affection is of a more local nature, galvanic plates are to be applied for half an hour to the affected surfaces, after each application of sedative water, and the parts are then to be covered with camphor cerate plasters.

After eight days of this treatment the rubified places and the pimples are to be covered for ten minutes with a mustard poultice (Part II., 42); they are then to be washed with plenty of warm water, wiped with a sponge, and covered again for ten minutes with compresses imbibed with camphorated alcohol, to be succeeded finally by camphor cerate plasters, which are then left on till the next dressing. Should the mustard produce too much swelling, a saline cataplasm (Part II., 19) may be applied for ten minutes, and the place afterwards covered with a camphor cerate plaster.

Sea-bathing or sedative baths (Part II., 3) will be found to contribute materially to the success of this treatment. When the cutaneous disease has given way, the red surfaces must still be kept covered with camphor cerate to protect the progressive formation of the new skin, by sheltering the affected surfaces from the contact of the air.

In cases where the eruption affects the inside of the anus and of the parts of generation, camphorated alcohol must be applied instead of sedative water; the mustard must be altogether omitted, and the camphor cerate replaced by frequent injections of camphorated oil (Part II., 10) and the introduction of camphor bougies (Part II., 12) into the anus or the parts of generation.

In cutaneous affections of the face, the patient is recommended to wear, during the intervals between the dressings, a flesh-coloured linen mask anointed with camphor cerate. Should there still remain a few pimples, they may be squeezed out between the fingers, and covered with mustard, camphorated alcohol, and camphor cerate in the manner above described.

108. Sleeplessness.

Before going to bed, drink a glass of sugar water with a pinch of grated camphor (Part II., 7) and a few drops of sulphuric ether in it. Or chew camphor of about the size of a pea, and wash it down with a mouthful of water. This will give at least two hours and a half of a calm and profound sleep.

109. Spleen, Diseases of the.

For the treatment of diseases of the spleen, see Liver, diseases of the.

110. Sprains, Strains, Lumbago.

Temporary and incomplete luxations or dislocations of the joints.

Treatment.

Apply on the sprained joint or on the painful vetebra compresses well wetted with sedative water (Part II., 48). Should these fail to produce the desired effect within a reasonable time, replace them by a saline cataplasm (Part II., 19). If the part happens to be swollen, apply compresses imbibed with camphorated alcohol (Part II., 9), instead of the sedative water compresses. Cover the affected joint afterwards with compresses plentifully anointed with camphor pomatum (Part II., 13).

The reduction of *dislocations* or *luxations* of the jaws, ribs, shoulders, elbows, thighs, wrists, fingers, knees, ankles, and toes had always better be entrusted to an expert surgeon.

111. Squinting, Strabismus.

Irregular contraction of the muscles of the eye, either congenital, or caused by the presence of intestinal worms (in which case the squinting is intermittent); or occasioned by a spasm, palsy, epilepsy; or resulting from a bad habit, which children will contract by having their eyes unequally exposed to the light; or acquired by imitation.

For the treatment of intermittent squinting, see Worms.

On no account whatsoever have recourse to a surgical operation. In congenital strabismus, and in squinting from a bad habit, a mask or apparatus might be contrived for the child to wear, which will only permit vision in the direction of the parallelism of the eye; thus, for instance, a parallelogram placed on the nose, like a pair of spectacles, will in the end cure a convergent squint.

112. STOMACH, DISEASES OF THE—GASTRIC AFFECTIONS; GASTRITIS, GASTRALGIA, STOMACH-ACHE; CRAMP OF THE STOMACH; GASTRIC FEVER; BILIOUS FEVER; TYPHUS FEVER; DISEASES OF THE INTESTINES.

Causes.

Gastric affections proceed either from the acid or acrid quality of the food and drink, or from the presence of ascarides or other worms.

The more serious of the gastric affections, gastric fever, bilious fever, typhoid fever, &c., have been treated of already in the chapter on FEVERS.

Symptoms of Gastralgia.

The *stomach-ache* (CRAMPS IN THE STOMACH, GASTRITIS, or GASTRALGIA) is attended with a sharp and continued pricking in the stomach, with occasional shoots upwards in the direction of the heart. The patient suffers most on an empty stomach; the ingestion of food affords a momentary relief, but the pain speedily returns during the digestive process. The patient suffers also from heart-burn, nausea, and retching; the stomachic fluids rise to the throat, and are ejected with most painful straining.

The remedies usually employed, and the mucilaginous and insipid diet recommended in this disease, by the old school, have simply the effect of increasing the severity and intensity of the symptoms.

Treatment.

Hygienic regimen (Section I.). Spiced dishes, &c. (Part I., chapter iii.). Vermifuge cataplasms (Part II., 18) over the belly. Five or six grains of aloes, with decoction of herbs (Part II., 1, 2), and vermifuge clysters (Part II., 24). Decoction of succory (Part II., 34) with a grain of camphor in each glassful. Children should be given, instead of the aloes, two, three, or four times a day, a large tablespoonful of succory syrup (Part II., 52), and have a large lump of camphor placed or held close to the mouth. (See also WORMS.)

113. STONE, CALCULUS, CONCRETION; GRAVEL; GALL-STONES, BILIARY CONCRETIONS; STERCORACEOUS CONCRETIONS.

A *calculus* is a precipitated hardened deposit of a substance held previously in solution by the liquid of an organ.

If an acid be poured into a solution of silicate of potass a gelatinous precipitate of silica will subside, which will in time

acquire the form and hardness of a calculus. In the same way a calculus may be formed in the cavities of our excretory organs, where chemical agents of different nature may happen to come in contact.

The *calculi of the liver* (*gall-stones, biliary concretions*) seem to consist simply of hardened bile. The *intestinal concretions* (*stercoraceous calculi*) consist of excrements hardened by calcareous deposits (tartrate of lime), formed in consequence of the ingestion of green fruit. The so-called *bezoars* are intestinal calculi found in goats and other animals. The *calculi of the urinary organs* vary in colour, size, and form, according to their respective chemical composition and the mode of their precipitation. *Gravel* is simply a collection of minute calculi; and the large *calculi* or *stones* are often only an agglomeration of gravel dust. The *urinary calculi* are most frequently composed partly or entirely of phosphate of lime, or of uric acid, or of urate of ammonia, or of the double phosphate of magnesia and ammonia. Concretions may form also in the salivary ducts.

Symptoms.

The *biliary concretions*, by obstructing the biliary ducts, and thus opposing the defluxion of the bile, may throw the whole system into confusion, and determine a jaundice, attended with the gravest symptoms. The presence of *calcareous concretions* (stercoraceous calculi) in the intestines may give rise to the iliac passion and to dysentery. The presence of *urinary calculi* in the kidneys occasions most distressing pains in the loins, which cease as soon as the calculus has made its way to the bladder; but a new series of sufferings commences here, arising from the impediment which the presence of the calculus in the bladder opposes to the free emission of the urine.

Treatment.

The hygienic regimen of our method (Section I.) will prevent the formation of concretions of any kind.

The drinking of tar water (Part II., 53, *a*) promotes the secretion of urine, and constitutes thus an excellent auxiliary to the use of camphor, which forms part of that regimen.

When a stone has once descended to the bladder, or has been formed in the cavity of that organ, no medication in the world can pretend to the power of dissolving it; the only remedy left in that case is a surgical operation, either by cutting (cystotomy or lithotomy), which ought to be resorted to when-

ever the stone happens to be of considerable size, or encased in the walls of the bladder; or by lithotrity (crushing of the stone), which ought to be resorted to only in the case of small calculi. The patient should select an expert operator, who has no prejudice in favour or against either of the two operations, and will accordingly resort to the one most in accordance with the indications of the disease.

Saline cataplasms (Part II., 19) applied frequently on the loins and the lower part of the abdomen will alleviate the sufferings occasioned by the presence of calculi or gravel in the kidneys, ureters, or bladder. The immersion of the genital parts in camphor pomatum (Part II., 13, and p. 89) will also contribute to assuage the pain. Injections of camphorated oil (Part II., 10) are recommended. The patient should drink a bowl of infusion of borage (Part II., 36) morning and night, and strictly conform to the hygienic regimen.

Against *calcareous concretions* (*stercoraceous calculi*) in the intestines, emollient and saline cataplasms (Part II., 17, 19) are to be applied on the abdomen. Emollient camphorated clysters (Part II., 21), and even injections of camphorated oil into the rectum, are also recommended. The index, greased with camphorated oil, may be introduced into the anus to endeavour to crush the concretion, without injuring the mucous membrane of the intestine. Should these means fail, a dose of castor oil (Part II., 16) must be had recourse to.

Against *biliary concretions*, or *gall-stones*, we recommend purging with castor oil, and application of saline cataplasms over the stomach and loins.

114. Suffocation and Strangling; Asphyxy by Strangulation (Hanging), or by Immersion in Water (Drowning), or by the Fumes of Charcoal, or the Mephytic Emanations of Cesspools, Drains, Graveyards, Putrefying Animal Matters, Coal-pits, etc.

1. *Recovery of hanged Persons.*—As soon as the person has been cut down, wrap a cravat soaked in sedative water (Part II., 48) round the neck; bathe the head with sedative water, and lotion the body with the same fluid; immediately after rub the back, chest, and belly with camphor pomatum (Part II., 13), and continue the lotions and frictions alternately until the patient gives signs of returning consciousness. Hold a flask with sedative water under his nose; blow air into the lungs, and then press the chest, and repeat these operations

alternately, so as to imitate and replace as much as possible the natural respiration. Persevere with these endeavours as long as there remains the least hope of success. As soon as the patient recovers consciousness, give him a spoonful of sedative water in a glass of water.

2. *Recovery of drowned Persons.*—Have the body carried to a warm room, and lay it on either side, with the head slightly leaning sidewards; rub the body dry with hot towels. Bathe and sponge it all over with camphorated spirits of wine (Part II., 9), and rub it afterwards vigorously with camphor pomatum. Wet the head well with sedative water, and wrap round the neck a cravat dipped in camphorated alcohol; hold a flask with camphorated alcohol to the nose. Try to imitate the natural respiration, as recommended for the recovery of hanged persons. Take care to maintain the temperature of the room at the proper height, to renew the air frequently, and to burn vinegar on a red-hot shovel carried about the room. Superpurging clysters (Part II., 23). Persevere until every reasonable hope of success has vanished.

3. *Recovery of Persons suffocated by the Fumes of Charcoal, or Emanations of Carbonic Acid.*—Throw the door and windows wide open to let in the air; carry the person suffocated at once to a warm room; wet the head well with sedative water, and bathe and rub the back and chest incessantly with the same fluid. Touch the gums and the inside of the mouth (that is, if you can get the mouth open) with sedative water, or from time to time with salt water (Part II., 47) instead. Emollient camphor clysters (Part II., 21).

4. *Recovery of Persons asphyxiated by the Emanations of Dead Bodies, Cesspools, putrifying Animal Matters.*—Wet the head well with sedative water, wrap round the neck a cravat imbibed with the same fluid, and rub the back, chest, and loins alternately with camphorated alcohol and sedative water. Give an emollient camphor clyster (Part II., 21). Hold a flask with vinegar to the nose, and, if possible, make the patient swallow some salt water or some camphorated vinegar (Part II., 15).

115. SUN STROKE, COUP DE SOLEIL.

Lotion the body all over with sedative water; wet the head well with it, and apply compresses imbibed with it round the neck and the wrists.

116. Swelling (White) of the Joints.

Causes.

A white swelling proceeds from a morbid development of the articular cartilages, occasioned by the presence of a foreign body, or by the erosion of a larva, or by the action of mercury.

Symptoms.

Swelling of the joint, gradual wasting of the limb below the tumour, progressive flexion of the joint to a right angle. Fever. At first the pains are often almost insupportable, but after a time the tumour becomes painless. The knee-joint is the one most liable to a white swelling.

Treatment.

Application of sedative-water compresses (Part II., 48) over the swelling three times a day, for twenty minutes each time; after each of these applications, dressing with camphor pomatum (p. 57, *b*), kept in place by means of bandages and sticking plaster. Sedative-water compresses above and below the swelling. Application of galvanic plates (Part II., 27) on the tumour half an hour before the application of the sedative-water compresses. Lotion the body with sedative water, and rub it after for twenty minutes with camphor pomatum (Part II , 13). The patient should drink the iodurated decoction of madder (Part II., 39) for from six to ten days if he can bear it; after a few days' intermittence, he should resume drinking it. Hygienic regimen (Section I.). See also Ankylosis.

117. Teething, Difficult.

The obstacle which the gums oppose to the cutting of the teeth, occasions fever, headache, convulsions, salivation or slavering, in some cases diarrhœa, in others costiveness.

Treatment.

Give the infant every other day a dose of succory syrup (Part II., 52). Rub the gums frequently with the finger dipped alternately in sedative water (Part II., 48), and salt water (Part II., 47). Lotion the head and neck with sedative water, and rub the chest gently with a little of the same, passing the hand up under the clothes, to avoid undressing the child. Give the infant every morning and evening a little linseed clyster, with a pinch of bay-salt in it.

118. Testicles, Diseases of the.

The testicles are liable to inflammation and swelling, to dropsy (see Hydrocele), and to scirrhous and cancerous affections (see Cancer).

In cancerous degenerescence, the ablation of the affected testicle by a surgical operation is the only remedy left.

Against inflammation and swelling of the testicles we recommend a hip bath in a decoction of tar water and elder-flowers (Part II., 53, *c*) morning and evening; application of galvanic plates (Part II., 27); the hygienic regimen of our method (Section I.); and tar water (Part II., 53, *a*) to drink. Let the patient keep the parts immersed in camphor pomatum (Part II., 13) in an oil-silk bag (see p. 89). If the tar-water bath fail to produce the desired result, recourse must be had to the application of sedative-water compresses (Part II., 48) over the scrotum.

If there happen to be open wounds and purulent fistules in the scrotum, they must be frequently injected with camphorated oil (Part II., 10).

In obstinate cases, the scrotum may be kept immersed in camphorated alcohol (Part II., 9) in an india-rubber bag (see p. 89), as long as the patient can bear it.

119. Thrush, Aphthæ.

Aphthæ are little whitish ulcers, affecting the inside of the mouth (and sometimes, in more serious cases, also the throat, stomach, and even the whole of the intestinal canal), more particularly in infants. They either proceed from the contact of a mercurial or other poison, or are occasioned by the titillations of a tick or some microscopic intestinal worm.

Aphthæ in the mouth interfere with the movements of the tongue, disturb the secretion of the saliva, render deglutition difficult, and impart to the breath a fetid and repulsive smell.

Treatment for Adults.

Touch the aphthæ often with the finger dipped in camphorated spirits of wine (Part II., 9); gargle the mouth and throat afterwards with salt water (Part II., 47). Conform strictly to the hygienic regimen (Section I.). If these means fail to cure the aphthæ, the patient must drink the iodurated decoction of sarsaparilla (Part II., 40), and apply small galvanic plates for a few minutes, now to one, now to another of the ulcers. Gargle the mouth and throat with a solution of

8 or 10 grains of sulphate of zinc in a glass of water (taking care not to swallow the fluid).

Treatment for Infants at the Breast.

The mother or nurse must conform to the hygienic regimen of our method (Section I.). The ulcers are to be touched alternately with salt water and camphorated alcohol, diluted with ten times its volume of water. The child should be given every other day a large spoonful of succory syrup (Part II., 52). The camphor cigarette should be put occasionally, for a few instants, in the infant's mouth, and the lips gently pinched, so as to confine the inhalation of the air for the time to the passage through the tube.

120. Tic, Tic-Douloureux, Face Ague.

Face ague is occasioned mostly by intestinal worms. See Worms.

121. Toothache, Carious Teeth.

Caries of the teeth may proceed from the use of mercurial and other metallic preparations, or from the long-continued use of water that has filtered through mercurial veins, or from the abuse of acid substances, or from the erosion of the affected tooth by larvæ or an intestinal worm. Mercurial preparations blacken and loosen the teeth, and cause them to fall out without any considerable degree of pain.

The sufferings occasioned by carious teeth are so well known, that we need not give a description of them here.

The hygienic regimen of our method (Section I.), and a proper attention to the cleansing of the teeth, will in a great measure preserve you from the attacks of toothache. Brush your teeth every morning with water mixed with wood-ashes, and strained afterwards through a linen cloth, or with salt and water; after each meal wash your teeth carefully with water, or salt and water, and rinse your mouth with a little wine, or, in failure of this, rub the teeth with the finger dipped in eau de Cologne.

Treatment.

In cases where the caries has not penetrated deep into the substance of the tooth, and where the affection does not owe its origin to the abuse of mercurial preparations, a small lump of camphor put into the hollow tooth, will give almost instantaneous relief. Should this simple means fail to alle-

viate the pain, which may be considered a sign of the existence of some hidden abscess in the alveola or socket, touch the gum with the finger dipped in camphorated spirits of wine (Part II., 9), and apply a saline cataplasm (Part II., 19) on the affected cheek, and small sedative-water compresses (Part II., 48) behind the ears.

In toothache suspected of a mercurial origin, we recommend gargling the mouth with a solution of a few grains of sulphate of zinc in a glass of water, application of galvanic plates (Part II., 27) for one or two minutes to the gum, and iodurated decoction of sarsaparilla (Part II., 40) to drink.

Should the toothache, in either case, refuse to yield to these respective means, the carious tooth must be extracted; after the operation rinse your mouth with luke-warm water, until the bleeding stops to some extent, when you may add to the rinsing water a few drops of camphorated alcohol; put afterwards some grated camphor from time to time into the alveola or socket.

Never have a hollow tooth filled with gold, silver, tin, and, least of all, with the mercurial paste employed by some dentists.

122. Tumours, Encephaloid, of the Joints, Cancerous Tumours of the Joints.

Causes.

The action of mercury; parasitism of one of those larvæ whose presence determines the development of organs of superfetation.

Symptoms.

Excruciating pains in the affected bone mark the commencement of this formidable disorder; the head of the bone swells and projects outwards. The tumour goes on increasing; it pushes its way between the skin and the muscles, which latter it envelopes at last like a ring; they continue however, to perform their functions, as they do not participate in the abnormal development of the bone. The appearance of red divergent stripes on the neighbouring parts, indicates more surely than any other sign the nature of an encephaloid tumour. Every fresh advance of the cancerous degenerescence causes the unfortunate patient the most excruciating pains.

Treatment.

At the appearance of the first signs of an articular swelling, an experienced surgeon should be consulted. If he finds that he has to deal with a case of incipient cancerous degenerescence, let him endeavour to stifle the disorder in the bud, by burning the spot which appears to be the seat of the evil with vienna caustic (a mixture of equal portions of quicklime and caustic potass). The wound is then to be dressed as usual (see WOUNDS). If the affection has already made some progress, the tumour must be removed with the knife, and the wound dressed in the usual way. But if the head of the bone, from which the tumour springs, is already totally disorganized, amputation must be had recourse to.

The patient should, under all circumstances, conform strictly to the hygienic regimen of our method (Section I.), and drink the iodurated decoctions of madder and sarsaparilla (Part II., 39, 40).

123. TUMOURS—FUNGOID AND VARICOSE.

Removal of the tumour by a surgical operation, and dressing of the wound in the usual way (see WOUNDS).

124. TURNSICK, STURDY IN SHEEP (MORE RARELY IN MAN).

Development of a hydatide or of the larva of a fly in one of the lobes of the brain, or in the nasal chambers.

The animal attacked with this distemper turns incessantly in a circle.

Treatment.

In cases of turnsick in man, decoction of madder (Part II., 41). Worm clysters (Part II., 24). Aloes every five days; injections of camphorated oil (Part II., 10) into the nostrils. Constant application of sedative-water compresses (Part II., 48) on the head, and camphorated alcohol compresses (Part II., 9) over the nose. Salt water (Part II., 47).

To sheep attacked with sturdy give, instead of decoction of madder, leaves of madder mixed with the fodder, and inject into the nostrils oil and turpentine (Part II., 11), instead of camphorated oil.

125. TYMPANY, WIND.

Distention of the intestines, and sometimes of the whole abdominal cavity and the cellular tissue, by an excessive generation of sulphuretted hydrogen or carbonic gas, and

which through the pressure which it causes on the large blood-vessels and the lungs, puts the patient in danger of suffocation or apoplexy.

Treatment.

Give the patient immediately sedative water (Part II., 48), diluted with 20 parts of water (for cattle, half a quart of sedative water to a pailful of bran-water). Lotion the chest and belly with pure sedative water, until the distention has given way. Administer a worm clyster (Part II., 24; for cattle, 25), with a quarter of a glassful (for cattle, a glassful) of sedative water added to it.

126. URINARY ORGANS, DISEASES OF THE—INCONTINENCE AND RETENTION OF URINE; BLOODY URINE, HÆMATURY; DIABETES; TURBID AND GRAVELLY URINE.

Causes.

These disorders proceed mostly from the invasion of the genital organs by vermicular ascarides.

Treatment.

Hygienic regimen, taking care, more particularly, not to omit the three doses of camphor a day (Section I., 10). The parts should be worn, more especially during the night, in an oil-silk bag, with finely-grated camphor (Part II., 7) or camphor pomatum (Part II., 13) in it. In the case of adults, frequent injections of tar water (Part II., 53, *b*) and camphorated oil (Part II., 10) are recommended. The patient should wear drawers, having a small camphor satchel sewn in at the part corresponding to the perinæum. Grated camphor should be sprinkled every evening between the sheet and mattress or feather bed.

Against *hæmatury* we recommend the application of saline cataplasms (Part II., 19), well wetted with sedative water (Part II., 48), on the loins, and frictions with camphor pomatum (Part II., 13) after, the grease of the pomatum being finally washed away with camphorated alcohol (Part II., 9). Camphor (about the size of a pea) three times a day, with infusion of borage (Part II., 36). Injections of camphorated oil into the urethra.

See also STONE, COLIC (*nephritic colic*), and VENEREAL DISEASE.

127. VARICOSE VEINS, VARIX.

This disease affects mostly the superficial veins of the

thighs and legs, and the blood-vessels of the testicles (*varicocele*); it proceeds either from the action of mercurial poisons, or from the tickling of the veinous walls by certain parasitical animalculæ. The itching which attends varicose lumps, urges the patient to scratch the affected parts, which speedily leads to excoriations and ulcerations.

Treatment.

At the first appearance of a varicose tendency, cover the part threatened with a compress imbibed with sedative water (Part II., 48); ten minutes' application of this will suffice to rid the patient of the itching sensation, and to prevent the development of varicose tumours. Cover the part afterwards with a camphor cerate plaster (Part II., 14). If you have reason to suspect that the varicose tendency proceeds from the action of mercury, use compresses imbibed with camphorated alcohol (Part II., 9), instead of sedative water, and apply galvanic plates (Part II., 27). If the varicose lumps are once fully developed, all we can do is to give the patient some relief, by bathing the affected parts from time to time with camphorated alcohol, and keeping the leg encased in a camphor cerate stocking, kept in place by properly and strongly-applied bandages, and covered with oil-silk to protect the clothes from soiling. Simple bandages, properly applied, are preferable to the laced stockings usually recommended in varicose affections.

128. Venereal Disease.

We shall confine our observations here simply to the treatment of this class of affections.

Venereal infection may be in a measure guarded against, by washing the parts immediately after a suspected impure contact in plenty of water, or tar water (Part II., 53, *b*), if this happens to be at hand, and afterwards in a solution of sulphate of zinc; the parts are then to be covered with grated camphor (Part II., 7), externally or internally, according to the sex of the person. A glass of sugar water, with a little grated camphor and a few drops of sulphuric ether in it, is also recommended.

When the symptoms of a venereal infection have become manifest (in the shape of a gonorrhœa, or a chancre, &c.), the person affected should take three grains of camphor three times a day, and drink after each dose a glass of iodurated decoction of sarsaparilla (Part II., 40).

Hygienic regimen (Section I.). Constant use of the camphor cigarette (Part II., 8). The patient's drink should always be mixed with tar water (Part II., 53, *a*).

The parts should be worn in an oil-silk or india-rubber bag, with finely-grated camphor in it, during daytime, and camphor pomatum (Part II., 13) at night.

Local bath (Part II., 4, *e*) morning and evening. Injection into the parts, alternately of tar water (Part II., 53, *b*), camphorated oil (Part II., 10), and solution of 15 grains of sulphate of zinc in a glass of tepid water. Aloes (Part II., 1) every four days. Worm clysters (Part II., 24) frequently. Against febrile symptoms, sedative water (Part II., 48) applied in the usual way.

In cases of gonorrhœa, galvanic probes (Part II., 28), or injections of solution of sulphate of zinc (15 grains to a half-pint of water).

Galvanic plates, probes, or pessaries (Part II., 27, 28, 29), according to the nature or seat of the affection.

Chancres and syphilitic vegetations or excrescences ought to be burned three times a day, for ten minutes each time (or, in obstinate cases, for twenty minutes), with camphorated alcohol (Part II., 9); after each application of camphorated alcohol, lint anointed with camphor pomatum should be put between the glans and prepuce.

Syphilitic spots and eruptions, &c., must be burnt absolutely with camphorated alcohol; for this purpose, small compresses imbibed with that fluid are applied over the spots, &c., and kept on by means of a camphor cerate plaster; they are to be renewed at proper intervals, and to be continued until the scurf or crust comes off. In general syphilitic eruptions all over the body, the patient should sleep encased in camphor pomatum (see ITCH).

For the treatment of syphilitic aphthæ, see THRUSH.

129. VOMITING.

Vomiting may proceed, 1, from the eating of indigestible or alkaline aliments, or the introduction of an insect, a foreign body, or a poison into the stomach; or 2, from the presence of teres, or of the tape worm; or 3, from scirrhus of the pylorus.

In vomiting proceeding from the first cause, a grain of tartar emetic must be administered immediately, and the antidotes given which are recommended respectively in cases of poisoning (see POISONS). For the treatment of vomiting

from the second cause, see WORMS; for that of vomiting from scirrhous degenerescence of the pylorus, see PYLORUS, SCIRRHUS OF THE.

130. WHITLOW, PANARIS, FELON.

Causes.

Introduction of a splinter, foreign body, insect, or worm under the nail, or into the top joint of the finger.

Symptoms.

Shooting pains, which occasion fever and sleeplessness. Inflammation and swelling of the finger, terminating in suppuration.

Treatment.

Roll the finger up in a linen bandage soaked in camphorated alcohol (Part II., 9); draw over this a finger-stall made of leather or pig's bladder, and fastened round the wrist with a string. The fever will abate as if by magic. Pour a fresh supply of camphorated alcohol into the finger-stall whenever the bandage gets dry or the shooting pains return. After two or three days, the skin breaks, withers, and detaches itself, of which the patient is made aware by the pricking sensation now caused by the alcohol. When the affection has arrived at this point, the bandage is removed, the finger washed with tepid tar water (Part II., 53), and then wrapped up in lint plentifully anointed with camphor pomatum (Part II., 13), and secured by means of a bandage. A sufficiently large finger-stall is drawn over this. Whenever a slight itching warns the patient that the lint is getting dry, camphorated oil (Part II., 10) is poured into the finger-stall. This dressing is renewed every 24 hours, until the finger has got well again.

Should the skin not break of its own accord within a reasonable time, the abscess may be opened with a needle or the point of a penknife; dressing with camphor pomatum as above.

131. WOMB, DISEASES OF THE.

Causes.

Infection of the womb by an impure connection, or by the use of mercurial and other venomous preparations. Inflammations and ulcerations of the organ, by the introduction into its cavity of foreign bodies or of vermicular ascarides.

Symptoms.

Tickling and itching in the parts; fluor albus; loss of blood, mixed with clots, and often even with ribbons of flesh.

Treatment.

Uterine diseases must be combated in the early stages; at a later period we can only expect to afford some relief to the patient, but not to achieve a cure.

We recommend, in uterine diseases, frequent injections of tar water (Part II., 53, *b*), and the still more frequent introduction into the female part of generation, of camphor pomatum (Part II., 13), or of camphor bougies (Part II., 12). Applications on the lower part of the belly and on the loins, of compresses imbibed with sedative water (Part II., 48), or, from time to time, of saline cataplasms (Part II., 19). Frequent frictions with camphor pomatum. Galvanic pessaries (Part II., 29); injections of solution of sulphate of zinc (15 grains to a glass of water). A glassful of iodurated decoction of sarsaparilla (Part II., 40), with a dose of camphor in it, three times a day. Aloes (Part II., 1) and emollient camphor clysters (Part II., 21) every four days. Decoction of wild succory (Part II., 34) should be mixed with the patient's drink.

132. Womb, Falling of the, Prolapsus Uteri, Descent of the Womb.

Treatment.

Frequent applications on the lower part of the abdomen and over the loins, of compresses soaked in camphorated alcohol (Part II., 9); frequent injections of tar water (Part II., 53, *b*) into the vagina; introduction of camphor bougies (Part II., 12) at night. Should these means fail to produce the desired result, the patient is recommended to wear a girdle round the lower part of the belly, with an *articulated pessary* attached to it; the pessary must be made and applied in a manner not to interfere with the free movements of the patient.

133. Worms, Intestinal Worms.

The three principal kinds of worms that affect the human economy, are the *ascarides*, *teres*, and *tænia* or *tapeworm*.

The *ascarides* are short and thin round worms, with pointed tail; the *teres*, long round worms, resembling earthworms; the *tapeworm* is a white flat worm, full of joints, and which acquires a very considerable, and in some cases, a truly enormous length.

Hydatids we call the development of the eggs of the tape-

worm, which are carried by the circulatory current into the brain, the abdominal cavity, the uterus, &c., &c.

The *teres* and *ascarides*, but more particularly the latter, may make their way from the intestinal canal and stomach, to the œsophagus, the larynx, the windpipe, the lungs, the nasal chambers, the Eustachian tube, &c.; the ascarides make their way from the *anus* into the genital organs, where they are apt to occasion the strangest and most formidable moral and physical disorders. Every change of domicile on the part of the worm may give rise to a new form of disease.

Infants who are habitually playing with dirty dogs or cats, may catch the tapeworm from these animals, by means of the articulations of the worms which are voided with the excrements; these articulations resemble melon or cucumber seeds.

Symptoms.

The usual symptoms indicative of the presence of vermicular ascarides in the intestinal canal are, blue rings round the eyes; a sour breath; itching about the seat, and in the nose; sensation like the pricking of a pin along the intestinal surfaces, and about the uvula; loss of colour, wasting, drowsiness, and languor.

A gurgling noise in the intestines is a sign of the presence of *teres;* the person affected is often troubled with a sensation as if a lump or ball were rising to the throat; in females this has received the name of *globus hystericus,* from a mistaken notion as to its cause.

Infants that have caught the tapeworm from dogs or cats, void excrements resembling chewed and half-digested flesh.

With respect to the tapeworm of man, there is hardly a disease known, of which the operations of this most formidable parasite may not simulate the symptoms, from a voracious appetite up to epilepsy and tetanus, according as the head of the worm may happen to move about the mucous membranes of the digestive organs, or in some nervous centre.

The patient is troubled with throbbings, and pinching and shooting pains in the stomach; he feels a cold glutinous mass gliding along the intestinal walls. A gurgling noise is heard, proceeding evidently from the œsophagus, and which ceases and re-descends to the stomach as soon as the patient gargles the throat with a little salt water (Part II., 47), or, more surely still, as soon as he swallows a few drops of that fluid. In some persons troubled with a tapeworm, the in-

gestion of the least drop of water produces, at times, starts, followed by the expulsion of cold stringy mucosities, attended with violent retching. When the worm insinuates its taper head about the glottis, it determines in that part the formation of lumps of bluish-looking mucosities, which a simple salt-water gargle suffices to bring away without the least effort; in some cases, the tickling of the glottis by the worm provokes fits of coughing.

Treatment against Teres and Ascarides.

1. *In the case of Infants*, see INFANTS, DISEASES OF.

2. *In the case of Children above five years of Age.*—Give the child camphor (about the size of a pea) morning and evening, with a mouthful of salt water (Part II., 47) to drink after, or a large spoonful of succory syrup (Part II., 52). Apply morning and evening a vermifuge cataplasm (Part II., 18) over the pit of the stomach. Lotions with camphorated alcohol (Part II., 9), and frictions with camphor pomatum (Part II., 13) after. Occasionally a vermifuge clyster (Part II., 24), omitting the tobacco.

After a time give the child one grain of calomel powder (Part II., 6) in a tea-spoonful of preserves. The following mixture is also recommended.

Take of Olive oil }
White wine } of each three spoonfuls.
Sugar, one spoonful.

Beat these ingredients up together, and add the expressed juice of a lemon.

You may give also the powder of the male fern (Part II., 26), and that of worm-seed (Part II., 31), in preserves, and decoction of sea moss (Part II., 35).

3. *In the case of Adults* the same treatment may be followed, increasing simply the doses of the calomel, &c., and adding the usual quantum of tobacco to the vermifuge clyster (Part II., 24). Hygienic regimen (Section I.). Spiced dishes (Part I., chapter iii.). Occasionally a small glass of aromatic liqueur (p. 18), or of camphorated brandy (Part II., 9).

Treatment against the Tapeworm.

If the above means prove unsuccessful, this may be considered a sign that we have to deal with that most terrible scourge of our intestines—the *tapeworm;* in which case the patient must chew, at least three times a day, a bit of pomegranate peel (Part II., 45), about the size of a florin, and

wash it down with half a glass of white wine or a mouthful of salt water (Part II., 47). A glass of pomegranate wine (Part II., 46) every morning. Whenever the worm ascends to the throat, the patient should chew a bit of pomegranate peel, and draw up the nostrils camphorated alcohol, diluted with ten times its volume of water. Lotions with camphorated alcohol or with sedative water (Part II., 48) over all the parts where the bites of the worm are felt. A dose of two grains of calomel in powder (Part II., 6) occasionally; vermifuge clysters (Part II., 24). Constant use of the camphor cigarette (Part II., 8). Hygienic regimen; spiced dishes; salads, flavoured with garlic. After a time, the *grand remedy* is resorted to; this is prepared as follows:—

Take of Pomegranate peel from 2 oz. to 2½ oz.
Root of male fern (Part II., 26), } of each 3 drams.
Sea-moss (Part II,, 35), }
Water, 1 quart.

Boil to two-thirds.

The patient first drinks a cup of milk, in order to entice the worm into the stomach; a quarter of an hour after he takes a bowl of the decoction, followed in about fifteen minutes by another bowl; the sucking of a lemon will take off the nausea produced by the decoction.

Half an hour after the second bowl, the patient takes a dose of castor oil (Part II., 16). When that purgative has ceased to operate, the abdomen and the loins are bathed with sedative water (Part II., 48), and rubbed with camphor pomatum (Part II., 13) after, the grease being finally washed off with camphorated alcohol. A camphor bougie (Part II., 12) or a little camphorated oil (Part II., 10), introduced into the anus, will speedily assuage the smarting felt about the seat.

This *grand remedy* ought to be repeated every fortnight, until the tapeworm is thoroughly destroyed; in the intervals, the ordinary treatment is to be continued.

134. Wounds—Dressing of Wounds, Ulcers, Sores (Surgical Operations, Amputations).

The first thing to be looked to in the treatment of wounds is the tying of the arteries from which the blood escapes. For this purpose, the wounded artery is seized with a pair of small forceps, twisted, and strongly tied with silk thread greased with camphor pomatum, or waxed with adhesive camphor plaster (Part II., 55). The wound is carefully examined to

ascertain whether any foreign body be lodged in it; this, if possible, is extracted; the wound is then cleaned with pure water, and, if no bone happens to be broken, its sides are brought together, and secured in that position by means of strips of the strong adhesive plaster (Part II., 54). A thick layer of grated camphor (Part II., 7) is now spread over the lips of the wound; over this is placed a layer of lint pledgets greased with camphor pomatum (Part II., 13), which again is covered with dry compresses; the dressing is secured by means of properly-applied bandages (see pp. 87-90). The bandages above and below the wound are moistened with camphorated alcohol (Part II., 9). At the least symptom of fever, sedative-water compresses (Part II., 48) are applied round the neck and wrists. This first dressing is left to continue on for four days; after which it is removed, and the wound washed with a sponge dipped in tepid tar water (Part II., 53, *b*); the wound is then dressed again in the same manner as before, and the dressing renewed every 24 hours, care being taken each time to sponge the wound with tepid tar water. The patient may eat with impunity as soon as he feels an appetite.

If the wound is of a nature that its sides cannot be brought together, a piece of perforated linen (see pp. 87-88) dipped in camphorated oil (Part II., 10) is applied over the wounded surface, and then sprinkled over with a tolerably thick layer of finely-grated camphor; the rest of the dressing is applied in the usual way. The first dressing need be left on only 24 hours. The subsequent dressings are renewed every 24 hours, as above, care being taken each time to sponge the wound with tepid tar water. Abrasions, excoriations, ulcers, &c., are dressed it the same way.

APPENDIX.

A Brief Glossary of certain technical terms occurring in the Registrar General's weekly report, and which may not be universally intelligible to the public.

Arthritis.—Inflammation of the joints.

Ascites.—Dropsy in the belly.

Atrophy.—Decline, or wasting, from local defects of nutrition.

Bronchitis.—Inflammation of the air-tubes.

Cephalitis—This term is employed to designate an inflammation in the head, affecting both the membranes and the substance of the brain to nearly an equal extent.

Cystitis.—Inflammation of the bladder.

Diabetes.—Excessive secretion of urine containing sugar.

Enteritis.—Inflammation of the internal coats and of the glands of the small or large intestines.

Gastritis.—Inflammation of the internal coats of the stomach.

Hepatitis.—Inflammation of the liver.

Hernia.—Rupture.

Hydrocephalus.—Water on the brain.

Ileus.—Inflammation and gangrene of the muscular coat of the intestine.

Intussusception.—Invagination of the bowel; involving of one gut within another.

Ischuria.—Suppression of the secretion of urine.

Laryngitis.—Inflammation of the larynx; œdema of the glottis.

Metria.—Puerperal fever; childbed fever.

Nephria.—Bright's disease; glandular disease of the kidneys; renal dropsy.

Nephritis.—Inflammation of the kidneys.

Paramenia.—Mismenstruation.

Pericarditis.—Inflammation of the external membrane of the heart, and of the sac in which the heart is contained.

Peritonitis.—Inflammation of the peritonæum (membrane lining the cavity of the belly and covering the intestines).

Phlegmon.—Inflammation of the cellular tissue and skin.

Pneumonia.—Inflammation of the lungs; inflammation of the tissue of the air-cells.

Purpura.—Purples, scurvy, land-scurvy.

Tabes mesenterica.—Mesenteric disease; tubercles in the mesentery (the double membrane which connects the intestines to the back-bone).

Zymotic Diseases.—Literally, fermentative diseases. In the Registrar General's report this class comprises diseases which have been observed to be epidemic, endemic, or contagious.

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